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FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE IN MONTGOMERY COUNTY

October 1980

This Plan amends the General Plan for the Physical Development of the Maryland-Washington Regional District and the Master Plan for Highways within Montgomery County, Maryland, and the following master plans: Clarksburg, Damascus, Fairland, Beltsville, Upper Northwest Branch, Colesville, Olney, Sandy Spring/Ashton, Boyds, Poolesville Vicinity, as well as the Patuxent River Watershed Park Master Plan.

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

8787 Georgia Avenue
Silver Spring, Maryland 20907

14741 Governor Oden Bowie Drive
Upper Marlboro, Maryland 20870

Notice

Since the approval and adoption of this Plan in 1980 various steps have been taken to implement the land use and zoning recommendations contained herein. On January 6, 1981, the Montgomery County Council first adopted text amendments to the Zoning Ordinance establishing the Rural Cluster Zone, Rural Density Transfer Zone, and the transferable development rights system. Further changes to the Zoning Ordinance have been made through the years to strengthen the program and broaden its application. The most recent changes were adopted by the County Council in the summer of 1987 when they comprehensively amended the Zoning Ordinance establishing TDR Zone districts as receiving areas and designating them on County zoning maps as recommended in area master plans.

***

"Appendix A: Summary of Rural Density Transfer Zone (RDT) and Rural Cluster Zone (RC)" has been revised. Refer to section 59-C-9 of the Montgomery County Zoning Ordinance for current agricultural zones.

***

Refer to the *Master Plan for Historic Preservation,* as amended, for the location of designated historic resources in the Agricultural/Rural Open Space Preservation area. "Appendix E: Historic Sites Master Plan and Ordinance" lists all sites included in the *Master Plan for Historic Preservation* as of October 1988.

ABSTRACT

TITLE: Functional Master Plan for the Preservation of Agriculture and Rural Open Space in Montgomery County

AUTHOR: The Maryland-National Capital Park and Planning Commission

SUBJECT: Techniques to Protect and Preserve Agriculture and Rural Open Space in Montgomery County

DATE: October 1980

PLANNING AGENCY: The Montgomery County Planning Board

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ABSTRACT: This publication contains the text with supporting maps and supporting technical information for the Functional Master Plan for the Preservation of Agriculture and Rural Open Space in Montgomery County, developed by the Montgomery County Planning Board. This Plan amends the General Plan for the Physical Development of the Maryland-National Washington Regional District and the Master Plan for Highways within Montgomery County, Maryland, and the following master plans: Clarksburg, Damascus, Fairland-Beltsville, Upper Northwest Branch, Colesville, Olney, Sandy Spring/Ashton, Boyds, and Poolesville Vicinity, as well as the Patuxent River Watershed Park Master Plan.

This Plan recommends implementation techniques to protect and preserve agriculture and rural open space in Montgomery County.

THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION

The Maryland-National Capital Park and Planning Commission is a bi-county agency created by the General Assembly of Maryland in 1927. The Commission's geographic authority extends to the great majority of Montgomery and Prince George's Counties: the Maryland-Washington Regional District (M-NCPPC planning jurisdiction) comprises 1,001 square miles, while the Metropolitan District (parks) comprises 919 square miles, in the two Counties.

The Commission has three major functions:

(1) the preparation, adoption, and from time to time amendment or extension of the General Plan for the physical development of the Maryland-Washington Regional District;

(2) the acquisition, development, operation, and maintenance of a public park system; and

(3) in Prince George's County only, the operation of the entire County public recreation program.

The Commission operates in each county through a Planning Board appointed by and responsible to the county government. All local plans, recommendations on zoning amendments, administration of subdivision regulations, and general administration of parks are responsibilities of the Planning Boards.

CERTIFICATE OF APPROVAL AND ADOPTION

This Functional Master Plan amends the following master plans: Clarksburg, Damascus, Fairland-Beltsville, Upper Northwest Branch, Colesville, Olney, Sandy Spring/Ashton, Boyds, and Poolesville Vicinity, as well as the Patuxent River Watershed Park Master Plan, and the General Plan for the Maryland-Washington Regional District, 1964, as amended; and the Master Plan of Highways for the Maryland-Washington Regional District, 1953, as amended, has been approved by the Montgomery County Council sitting as the District Council by Resolution #9-979 on September 30, 1980 after two duly advertised Public Hearings held July 9, and July 14, 1980, and has been adopted by The Maryland-National Capital Park and Planning Commission by Resolution #80-26 on September 30, 1980, pursuant to the provisions of Article 66D of the Annotated Code of Maryland.

The Maryland-National Capital Park and Planning Commission

Royce Hanson
Chairman

John B. Burcham, Jr.
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CITIZEN ACKNOWLEDGEMENTS

In the preparation of the Plan, the members of the Agricultural Preservation Advisory Board and Agricultural Advisory Committee were very generous in assisting and advising the staff regarding a comprehensive preservation program. The staff met many times with developers, farmers, lawyers, and the Advisory Board and Committee and benefited from their thinking and advance reactions to early staff proposals. A special note of thanks to Rene Johnson, whose personal involvement and technical and committee studies helped in the development of this Plan. Following is a list of Advisory Board and Committee members who worked with the staff during the formulation of the Plan.

The listing of the names of members of the Agricultural Advisory Board and Agricultural Advisory Committee does not indicate approval or disapproval of this Plan by any member. It is, rather, a means of thanking the members for the advice and counsel they have given staff and Board in the preparation of the Plan.

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Barbara Stiles
Thompson Butz
Drew Stabler
David Weitzer

Agricultural Advisory Committee

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Bobby Rakestraw, Soil Conservation Service, District Conservationist
Robert Raver, Montgomery County Agricultural Extension Service Agent

AGRICULTURE & RURAL OPEN SPACE
FUNCTIONAL MASTER PLAN AMENDMENTS

1. March, 1986 - Hyattstown historic district & Hyattstown Mill complex approved & adopted amendment to the Master Plan for Historic Preservation designates the historic district and the mill complex to be protected.

2. March, 1986 - Upper & Western Montgomery County Resources approved & adopted amendment to the Master Plan for Historic Preservation designates six properties to be protected.

FOREWORD

This Functional Master Plan for the Preservation of Agriculture and Rural Open Space in Montgomery County was prepared by the staff of the Montgomery County Planning Board at the direction of the County Council with the support of the Office of Economic Development and the Montgomery County Agricultural Preservation Advisory Board and Committee.

This Plan represents a synthesis of findings expressed in the Issues and Alternatives Report for the Protection of the Rural Wedge, Poolesville Vicinity Master Plan, Olney Master Plan, Sandy Spring/Ashton Special Study Plan, contributions from individual farmers as well as the Agricultural Preservation Advisory Board and Committee, and suggestions and guidance from the Soil Conservation Service, the Office of Economic Development, and developer groups. There is adequate room for both development and agriculture in Montgomery County and this Plan provides for a comprehensive and cost-effective approach to the preservation of agriculture and rural open space utilizing traditional and innovative planning techniques.

This Plan focuses on the preservation of farmland but it also tries to establish a policy framework that will contribute to the continuation of farming in the County. Local government can control the quantity of land designated for farmland preservation, given its policy power and overall growth policies. However, local government can do little to influence the national or international food pricing policies, to influence the economics of a farm operation, or the commitment of a family to farm. Despite local government limitations to maintain farming, the fact remains that the burden of protecting the land itself falls almost exclusively on local government. However, the proposal to separate development rights from the farmland is intended to be an economic incentive to the continuation of farming.

Some specific elements of this Plan are noteworthy. It is the first comprehensive plan for the preservation of agriculture and rural open space in the County, as well as in the region, that is closely linked to an established countywide growth management program. This Plan also presents a broad range of actions necessary to develop an appropriate combination of incentives and regulations to preserve agriculture and rural open space within an urban fringe area such as Montgomery County. Integral products of the Plan are the Rural Cluster Zone, Rural Density Transfer Zone (Transfer of Development Rights), the Development Rights Bank, and the State Agricultural Land Preservation Program. The Plan, also, has identified an area that contains a "critical mass" of farmland and rural open space worth protecting in the Agricultural Preservation Study Area.

Finally, the Plan is open-ended allowing for revisions and additions as individual area master plans are completed. The open-ended nature of this Plan will help to fine tune the proposed incentives and regulations.

Royce Hanson, Chairman
Montgomery County Planning Board

THE CHARGE

The Montgomery County Council requested the Montgomery County Planning Board to "review elements of an effective program of agricultural land preservation that would preserve farm activity without a large expenditure of public funds." Also, the Montgomery County Planning Board was specifically asked to "reconsider an agricultural zoning text amendment as an element of the preservation program." The Council also requested the staffs of the Montgomery County Planning Board, Agricultural Preservation Advisory Board and Committee, and Office of Economic Development to identify those geographic areas of the County which should be considered for agricultural land preservation.

These requests have culminated in the preparation of this Plan--The Functional Master Plan for the Preservation of Agriculture and Rural Open Space in Montgomery County. The Plan will specify development and preservation policies, plans, and objectives for the Agricultural Preservation Study Area as well as those development areas also located within the area to be preserved (See Agricultural Preservation Study Area Map). All other areas in the County that contain farmland are covered by existing master plans that recommend residential development and open space with agriculture assuming a secondary role. Specifically, the Plan supports the open space protection programs expressed in the Eastern Montgomery County, Rock Creek, Olney, Sandy Spring/Ashton, and Potomac Master Plans.

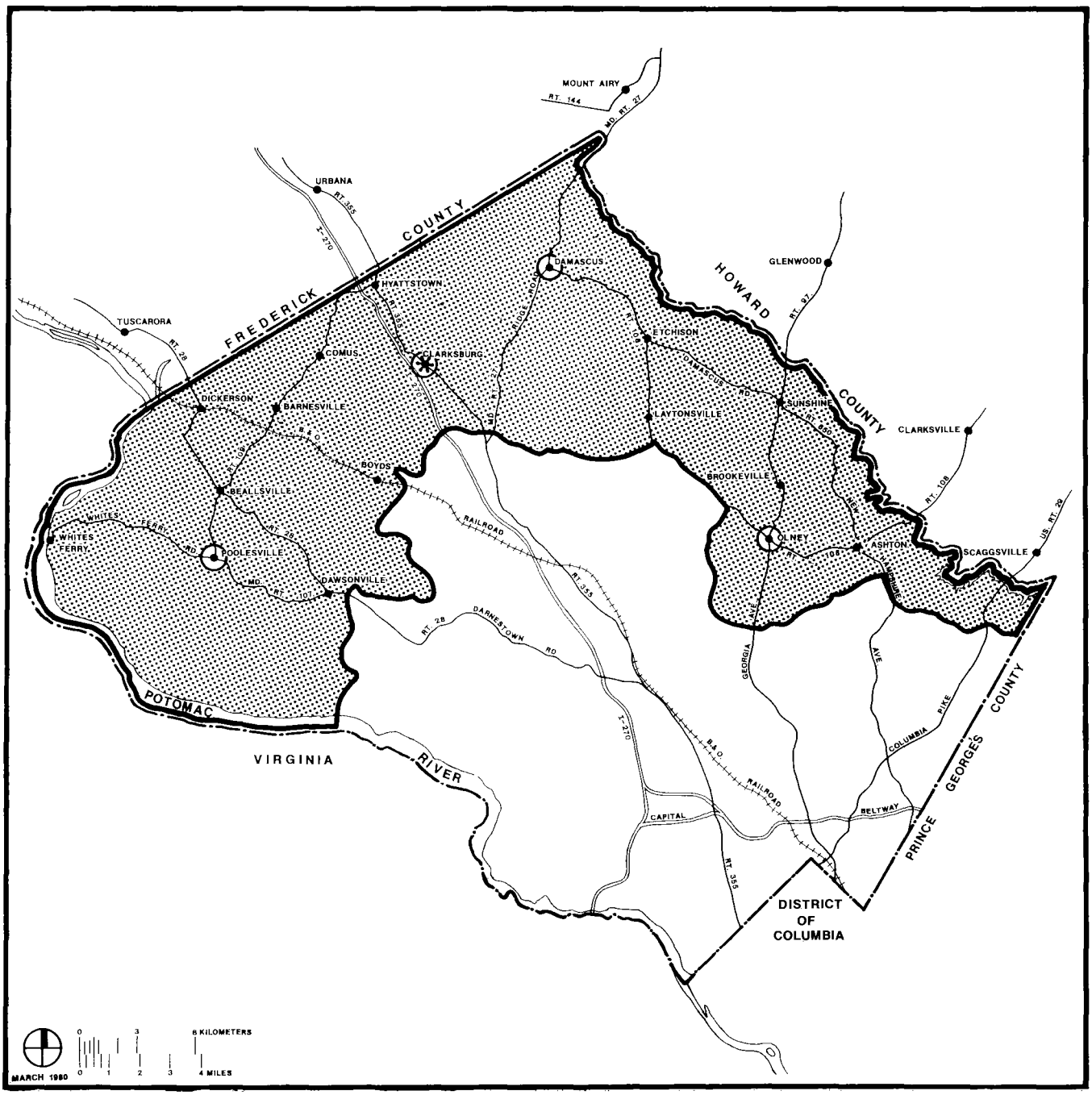
AGRICULTURAL PRESERVATION STUDY AREA

Legend:

- Montgomery County Boundary
- Study Area Boundary
- Satellite Community
- Corridor City

ACREAGE PROFILE

Total County	323,000 Acres
Study Area	163,000 Acres
Agricultural Reserve	110,000 Acres



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

SUMMARY OF FINDINGS AND RECOMMENDATIONS

THIS PLAN CONFIRMS. . .

- That a critical mass of active farmland exists in an area defined as the Agricultural Preservation Study Area.
- That Montgomery County's agricultural industry is economically viable and contributes to the regional support of this industry.
- That an agricultural and rural open space preservation program is in the public interest.
- That a preservation program should be linked to a County-wide growth management strategy.
- That development pressure is threatening and eroding the Agricultural Preservation Study Area.
- That farmland, rural open space, and residential development (rural communities and large lot development) can be compatible land-uses within the Agricultural Preservation Study Area, if appropriately located.
- That population centers, defined in the General Plan, such as Clarksburg, Damascus, Olney, and Poolesville are vital elements of the Agricultural Preservation Study Area.
- That the land-use and zoning recommendations expressed in the Boyds Master Plan, Sandy Spring/Ashton Special Study Plan, and Olney Master Plan are supported by the recommendations made in this Plan.

THIS PLAN RECOMMENDS. . .

- Preservation of critical masses of farmland and rural open space.
- Identification of an Agricultural Reserve of 110,000 acres and a Rural Open Space Area of 26,000 acres which are the focus of the preservation program.
- Application of incentives and regulations to preserve farmland and rural open space and to encourage agricultural use of the land.
- Application of specific innovative preservation techniques such as the Rural Density Transfer Zone, Rural Cluster Zone, and County Development Rights Fund.
- Support of full County participation in the State Agricultural Land Preservation Program.
- Support of a rural sanitation policy that does not encourage development within the critical mass of active farmland.

CHAPTER I:
POLICY FRAMEWORK

POLICY FRAMEWORK

In the late 1950's, agricultural and open space preservation arose as a social and economic issue. The loss of agricultural and open space land, as a metropolitan planning issue, was expressed in terms of metropolitan needs and problems--the need to preserve open space and the diseconomy in building the costly infrastructure to serve scattered suburban development. This was at the heart of the issue in 1956[1] when Maryland, the first state to do so, enacted a law to provide preferential assessments on farmland in the hope of encouraging farmers not to sell their property to developers. Today, 42 states have enacted this type of legislation. Despite preferential assessment programs, however, development pressure has continued to erode farmland. By 1976, a former Soil Conservation Service Administrator, R. M. Davis, warned that "nearly four-fifths of the total cropland available in this country is already in crops. . . An expanding U.S. population, coupled with growing demand for agricultural commodities abroad, makes our potential cropland figures seem very small indeed."[2] Recent studies and reports prepared by the Environmental Protection Agency, the Council of Environmental Quality, the National Wildlife Federation Conservation News, 10-15-79, and a Washington Post editorial of 11-21-79, point out the continuing losses of farmland and the critical need for protective measures. "Ten

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1 Constitutionality of the law was supported by referendum in 1960.

2 "Land and Food, The Preservation of U.S. Farmland," American Land Forum Report, Number 2, Spring 1979.

years from now Americans will be as concerned over the loss of the nation's prime and important farmlands as they are today over the shortage of oil and gas," points out Soil Conservation Service Administrator, Norman Berg. These sentiments are voiced by many in all levels of government and among farmers themselves. Now, an additional concern has entered the preservation picture. The quantity of crops, and not simply the protection of agricultural land for its open space amenity value, has become very important. Yields per acre throughout the United States are no longer increasing as in the past, while export demands become important in light of the balance of payment dilemma.[3] The preservation issue affects all of us in terms of foreign policy, national economy, and basic humanity.

Much attention is now being given to establishing agricultural preservation programs throughout the United States at all levels of government.[4] Within our area alone, a wide variety of alternative preservation methods have been developed. On the State level, Senate President James Clark, a farmer, provided leadership in establishing the Maryland Agricultural Land Preservation Foundation. This Foundation within the Maryland Department of Agriculture administers a voluntary program for the purchase of development right easements from farmers. To date, the Maryland program has amassed 5,148 acres into Agricultural Districts with 16 easement sale applications pending for an additional 2,842 acres. Howard County has committed itself to preserving, in perpetuity, 25,000 acres of farmland. Howard County relies upon a local program purchase development rights in conjunction with the State development right easement program. Baltimore County has committed itself to preserving approximately 110,000 acres of farmland by using an agricultural zone, one 1-acre lot for each 50 acres, in coordination with the State easement program. Calvert County was the first county in the State to develop a transfer of development right program in coordination with the State easement program. Carroll County, which has developed an agricultural protection area of 180,000 acres and Frederick County are relying upon subdivision techniques and agricultural zoning in coordination with the State Farmland Preservation Program, to protect their agricultural lands.

Although a variety of federal agencies, local governments, and private research institutions are trying to develop planning techniques that strike the right balance between farmland preservation, conservation, and growth the problem continues because of the traditional inability of local government to develop comprehensive growth management plans which acknowledge the fact that there is a saturation point in an area's environmental or community systems beyond which a decay of system quality results.[5] The purpose of this plan, then, is to develop a scheme of growth

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3 Stanley D. Schiff, Agricultural Research Consultant, testimony before the Montgomery County Council, November 29, 1979.

4 The National Agricultural Lands Study, jointly sponsored by USDA and CEQ (to be completed by January, 1981) and The National Agricultural Lands Project sponsored by the National Association of Counties Research Foundation, are two of the most noteworthy nationwide studies.

5 Dennis White, Agricultural Land Preservation Administrator, Howard County, Maryland, a white paper report entitled, "Considerations in The Use of Purchase of Development Rights to Preserve Farmland," January, 1980.

which will provide for, encourage, and accommodate a variety of land uses, one of which is farming, within an overall County-wide growth management system. The growth management system is explained later in this chapter.

The climate necessary to focus public attention on the need to preserve agriculture and rural open space within an overall growth management system has already been created in Montgomery County. The Montgomery County Council, Montgomery County Planning Board, and Agricultural Preservation Advisory Board and Committee have continued to express serious concern for the preservation of agriculture and rural open space.

In response to Council directives, the following action has been taken:

1. The Issues and Alternatives Report for the Protection of the Rural Wedge was published in 1979. This Report documents the existence of an economically healthy "critical mass" of farmland and identifies alternative preservation methods within a public policy framework;

2. The Olney, Sandy Spring/Ashton, and Poolesville Vicinity Master were prepared; they identify specific agricultural preservation areas and techniques such as agricultural districts, Rural Density Transfer Zone (within Olney only), and Rural Cluster Zone to protect both farmland and open space;

3. The preservation text amendment package was developed which includes the legislation for the Rural Density Transfer Zone (RDT) and Rural Cluster Zone (RC) to implement the master plans noted above. (See Appendix A for a summary of each zone.)

4. The enactment of a one year interium ordinance limiting development in selected areas of the Rural Zone to 1 dwelling unit per 25 acres while this Plan was prepared.

5. The local Agricultural Preservation Ordinance was enacted. This Ordinance complements the State Agricultural Land Preservation Program and enables the County to participate in the State program.

Also created, as a result of the State preservation effort, is the Montgomery County Agricultural Preservation Advisory Board and Committee which has been very active with preservation efforts in Montgomery County.

PLANNING FRAMEWORK

The General Plan

All land use planning in Montgomery County is based upon the County's General Plan. The 1969 General Plan is the guiding plan for the entire County except as it may be amended by the adoption of a local area Master Plan, a Sector Plan, a Subregional Plan, or as in this instance, a County-wide Functional Master Plan.

The Montgomery County General Plan . . ."On Wedges and Corridors" was adopted in 1964 and updated in December 1969. Its purpose was to help establish overall policies for development of the Maryland-Washington Regional District and to relate these policies to the metropolitan framework.

The General Plan envisioned development radiating outward from the Federal city in a series of corridor cities along the major transportation corridors with wedges of lower density between them. The General Plan seeks to prevent urbanization of the open spaces, the wedges, that now exist between the radial corridors it describes. The Agricultural Preservation Study Area has been developed to identify a specific and unique part of the wedge network in Montgomery County, as identified in the General Plan.

"Wedge" is a term that designates in the General Plan rural, open space, low density residential, rural villages, and preservation uses. The Study Area applies to areas that are generally located outside the 10-year sewer envelope and demonstrate a critical mass of productive farmland and rural open space that has not been significantly eroded by subdivision activity. Specifically, Planning Areas (17) Poolesville and Vicinity, (16) Martinsburg and Vicinity, (12) Dickerson-Barnesville, (18) Lower Seneca Basin, (10) Bennett and Little Bennett Watershed, and (15) Patuxent Watershed Planning Areas, (13) Clarksburg, (11) Damascus, (14) Goshen, Woodfield, Cedar Grove, and (23) Olney and Vicinity are also included in the Study Area because of their productive farmland and cohesive agricultural community and land mass. (See Planning Area Map.)

The General Plan's rural pattern recommendations have four broad purposes:

- To help make the urban pattern efficient and pleasant;
- To provide and protect large open spaces for recreational opportunities;
- To provide a rural environment in which farming, mineral extraction, and other natural resource activities can be carried out; and
- To conserve natural resources and protect the public water supply and recreational waters.

However, the General Plan left to a later date the development of a detailed implementation strategy. The 1969 General Plan treats the wedge as one large area without distinguishing between agriculture and rural open space areas. This proposed functional plan does provide specific agricultural and rural open space preservation alternatives. These alternatives include incentives and regulations which are designed to mitigate development pressures and to promote the preservation of farmland, in concert with rural open space and appropriate residential development, along with the ultimate development of Clarksburg, Damascus, Olney Town Center, and Poolesville.

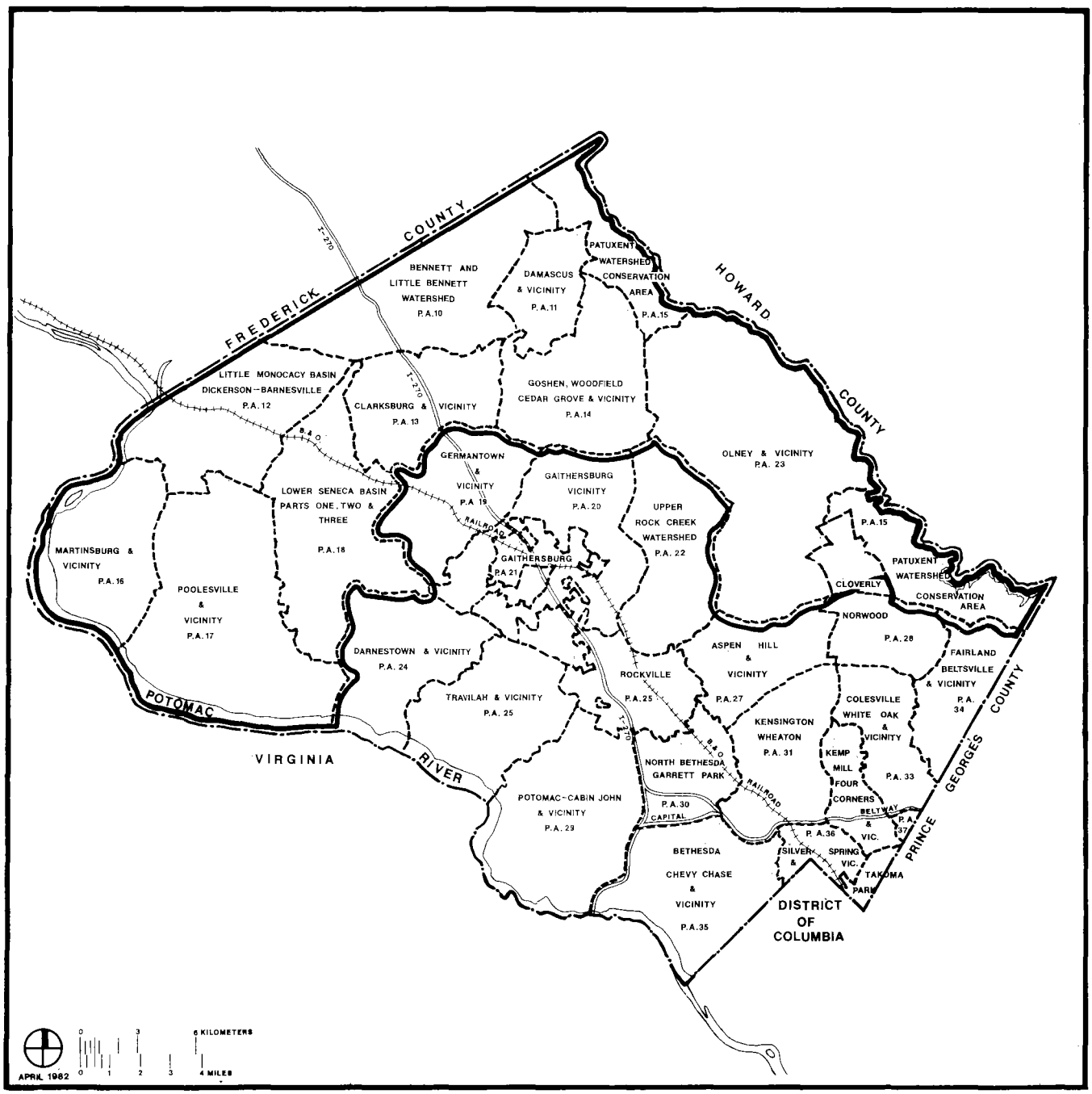
Growth Management System

As noted previously, Montgomery County has already developed a growth management program within which this proposed preservation program fits. The County's growth management program focuses on the orchestration of a variety of management tools

PLANNING AREAS

Legend:

- Montgomery County Boundary
- Study Area Boundary
- Planning Areas



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

designed to guide the locational aspects of growth as well as its timing and cost demensions in a manner that is responsive to the public interest.

With the adoption of the General Plan, a number of actions have been taken toward the development of a County-wide growth management program.

- The General Plan identified areas where development should be delayed or severely restricted. (1964-1969)
- The Capital Improvements Program (CIP) schedules projects for construction.
- The Ten Year Water Supply and Sewerage System Plan has required the county to identify sewer service areas in terms of the time at which service should be extended.
- The Germantown Master Plan (1973) demonstrated how staging could work.
- The Adequate Public Facilities Ordinance (1973) allows the Planning Board to disapprove a subdivision if it finds that existing facilities plus those contained in the CIP are inadequate to serve it.
- The Annual Growth Policy Reports have been developed which describe the existing public facility conditions, define objectives, determine the capacity of existing public facilities, project needs, analyze the costs and propose the tools to establish a growth pattern to carry out the concepts of the General Plan within the framework of responsible expenditure of public funds.

The first growth policy report was called Framework for Action, it outlined a framework for the entire growth management process. It centered on the capacity of existing and planned public facilities to serve the households and jobs that could be expected in the near future based on environmental, energy, and economic trends and limitations.

The second report, Fiscal Impact Analysis, and its sequel, Environment and Transportation, dealt particularly with the impact of alternative growth rates on the County's fiscal system in order to determine what it is possible to provide and the probable costs of maintaining current service levels with different growth rates. This report developed approaches to measuring costs in terms of levels of service for transportation, water, and sewage treatment.

The third report, Forecast-People, Jobs, and Housing, provided reasonably accurate 10-year demographic forecasts. This report provided the necessary demographic basis for functional planning based on relating facilities and services to the County's particular needs in particular areas.

The fourth report, Carrying Capacity and Adequate Public Facilities, emphasized the linkage between capital expenditures and operating costs and said that two things were necessary to make the linkage work; 1) the need for detailed demogrpahic forecasts, and 2) the need to be able to measure in detail the levels of service associated with

each of the functional activities. It also proposed the preparation of a County-wide staging plan based upon the "Carrying Capacity Concept" and "Adequate Public Facilities Concept."

The fifth report, called Planning, Staging and Regulating, carries out the recommendations of the earlier report, and produces a draft County-wide staging policy for public review and comment. One of the key ideas developed is the concept of "staging," as providing the necessary and desirable link between the concepts of "planning" and "regulating," on the private sector side of growth management, and between "planning" and "budgeting," on the public sector side.

The first and fifth growth policy reports specifically recognize the goal of maintaining the rural character of the Agricultural Preservation Study Area. The first report focused on General Plan concept recommendations and noted that "to allow extensive development in these areas would obviously be ruinous to the concept of the General Plan," in that widespread, scattered development would, "constitute the classic definition of sprawl, the very phenomenon that the General Plan was adopted to control."

The fifth report pointed out that the timing and scale of development within the Agricultural Preservation Study Area follows from three basic conditions:

1. There are no recommended transportation improvements to add to the existing capacity of the transportation system.

2. The Adequate Public Facility test for traffic will ensure that subdivision will only be approved if the nearest critical intersection will not exceed Level of Service D.

3. With the single exception of Clarksburg, the Study Area is not recommended for public sewer service within the next 20 years.

General Objectives of the Functional Plan

The Functional Master Plan for the Preservation of Agriculture and Rural Open Space in Montgomery County is built upon the policy framework established by the plans which preceded it.[6] The character of the Study Area has been established by these plans. This Plan embraces the goals and objectives set forth in its predecessors and recommends achieving those goals in only slightly different ways--through the use of more sophisticated analytical techniques and a number of planning and zoning tools which have developed since the earlier plans.

The Plan highlights the significant issues and recommends a course of action involved in the preservation of the Study Area utilizing its component parts, farmland, rural open space, residential development, and growth centers as defined in the General Plan

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6 The General Plan, Comprehensive Staging Plan, Clarksburg Master Plan, Damascus Master Plan, Olney Master Plan, Poolesville Vicinity Master Plan, and Sandy Spring/Ashton Special Study Plan; as well as the Ten Year Water Supply and Sewerage System Plan.

(See Montgomery County General Plan Concept Map); it then develops policy, preservation techniques, and recommendations related to those component parts. The Plan itself develops a zoning map and land-use plan that recognizes farmland as a permanent land-use and not simply a "holding land-use" to be utilized for future development.[7]

The critical land use issue in this Plan is the loss of productive farmland; the focus is the identification and application of land use regulations and incentives to help retain agricultural land in farming and complementary rural open space areas. The goal of 110,000 acres appears adequate to provide a viable land mass, an Agricultural Reserve, that would serve to define and support the critical mass of farmland in the County.

This Plan recommends that all proposed zoning changes be implemented through comprehensive rezoning (Sectional Map Amendment); the Sectional Map Amendment will be prepared immediately upon approval and adoption of this document. Rezoning by Sectional Map Amendment is not recommended for the Lower Patuxent Conservation Area (Lower P.A. 15) since the Eastern Montgomery County Master Plan and Sectional Map Amendment will be the vehicle by which the area is rezoned. Rezoning by Sectional Map Amendment process is recommended to implement the land-use recommendations expressed in the Poolesville Vicinity Master Plan.

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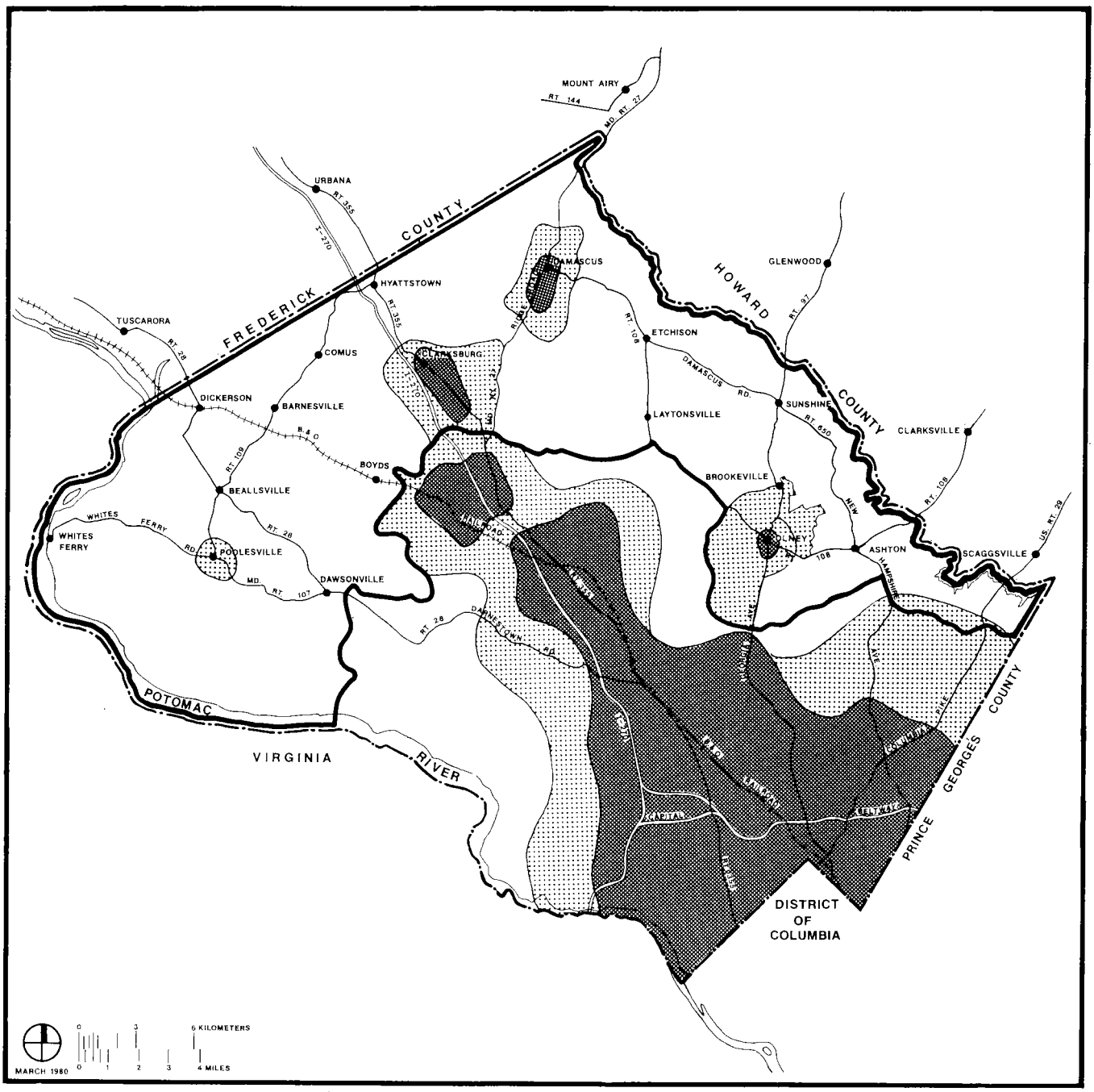
7 Commercial, industrial, and higher density residential uses will be recommended in appropriate portions of the Study Area identified for such development in the General Plan.

MONTGOMERY COUNTY GENERAL PLAN CONCEPT



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

CHAPTER II: THE SETTING

It may be surprising that despite four decades of extensive urbanization in Montgomery County, much of the land in the Study Area remains essentially unchanged. Beyond the suburbs stretch the country roads and highways, bordered with operating farms and small rural settlements. Some of these country towns have their own suburban sprawl, such as Poolesville or Damascus, but many other rural communities have changed little from earlier days. The countryside reflects an important agricultural heritage of cultural, economic, and aesthetic significance to the rest of the County and the region.

Over the years, the wedge areas of Montgomery County have become highly attractive to families who find appealing the idea of living on a country estate of 5-10 acres in a home with a panoramic view of Sugarloaf Mountain, fields, or piedmont hills. Single lots and small subdivisions of custom homes are creeping along rural road frontages throughout the County. "An extensive market exists for small farms despite relatively high per acre prices. Most active farmers are thereby excluded from the market. Hence, in most instances small acreages are purchased by those with little intention of contributing to the farm product market."[8] This type of development combined with the weakening of farm oriented services and markets, increase the pressure to further subdivide the wedge. As more people seek suburban and rural environments in Montgomery County, land prices increase beyond their use value in agriculture. The environment that was so enticing is destroyed, and the fields lie untilled, awaiting development. Meanwhile, those already living there voice a strong desire to preserve the County's rural character.

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8 Rene Johnson, "The Consequences of No Preservation Effort," Montgomery County Office of Economic and Agricultural Development, April 1979, page 3.

This pressure seriously threatens the primary land use element of the Study Area, farmland, and creates a climate identified by the New Jersey Commission on Agriculture as the Impermanence Syndrome--the feeling by farmers that farming is doomed in their area. This psychology is seen as a key factor, perhaps more so than direct economic conditions, for the decline of agriculture in the wedge areas of Montgomery County.

The Impermanence Syndrome results from the convergence of many factors--development pressures, rising taxes, departure of support industry for stronger markets, loss of political influence, laws that inhibit necessary agricultural practices, rising labor costs in the face of urban employment opportunities, suburban neighbor nuisances, and land speculation.

The Syndrome is manifested in an agricultural community that increasingly sees no future for itself and its children; that regards eventual over-running by the suburbs as inevitable. Soon, the critical mass of farms and services necessary to sustain a viable agricultural community crumbles. The unique characteristics inherent in the a viable agricultural community is eroded. General store and farm-oriented hardware and machinery dealers decline as development encroaches. In Dickerson, for example, the past 20 years have seen the loss of a large farm supply store, a gas station, and a market. Where once there were four retail establishments, there is now one with a new antique store recently added. Similar stories could be told about Beallsville and Barnesville.

During the next decade, towns such as Boyds, Dickerson, and Hyattstown will need to fight strongly to retain their community identity as large lot subdivisions continue their growth. The County is at a point where hard decisions must be made if commercial agriculture and rural communities are to survive. Although 40 percent of the land in the County remains in farmland, pivotal decisions must be made soon if appreciable farm acreage is to be preserved and the Impermanence Syndrome is changed into a Permanence Syndrome.

CHAPTER III: THE FACTS

Development Pressure

Prior to World War II, most of the land in Montgomery County was utilized as farmland with the exceptions of rural communities, occasional large lot residential development scattered throughout the County far from suburban development, and the older established down-County areas of Montgomery County.

However, by the mid-1950's, development pressure began to increase and land prices began to spiral upward due to future growth expectations of investors and developers. Farmland receded in the wake of suburbanization. By 1959, the market value of farmland in the County was close to $700 per acre and already beyond the ability to purchase with monies derived solely from farm product sales. This situation exists today; the current 1979 average market value of farmland is approximately $3,500 per acre[9]--well beyond the ability to purchase with monies derived solely from farm product sales. In the 1960's, about one-half of the farmland in the County moved to non-farm ownership. If recent growth trends continue, approximately 6,700 farmland acres will be lost County-wide to development during the next five years.

Despite the enactment of the Maryland Farmland Assessment Law in 1960 and the Rural Zone (5-acre minimum) in 1974,[10] the conversion of farmland throughout the entire County continues to occur. This threat to the Study Area is demonstrated by the following facts and is illustrated on the Subdivision Activity Map:

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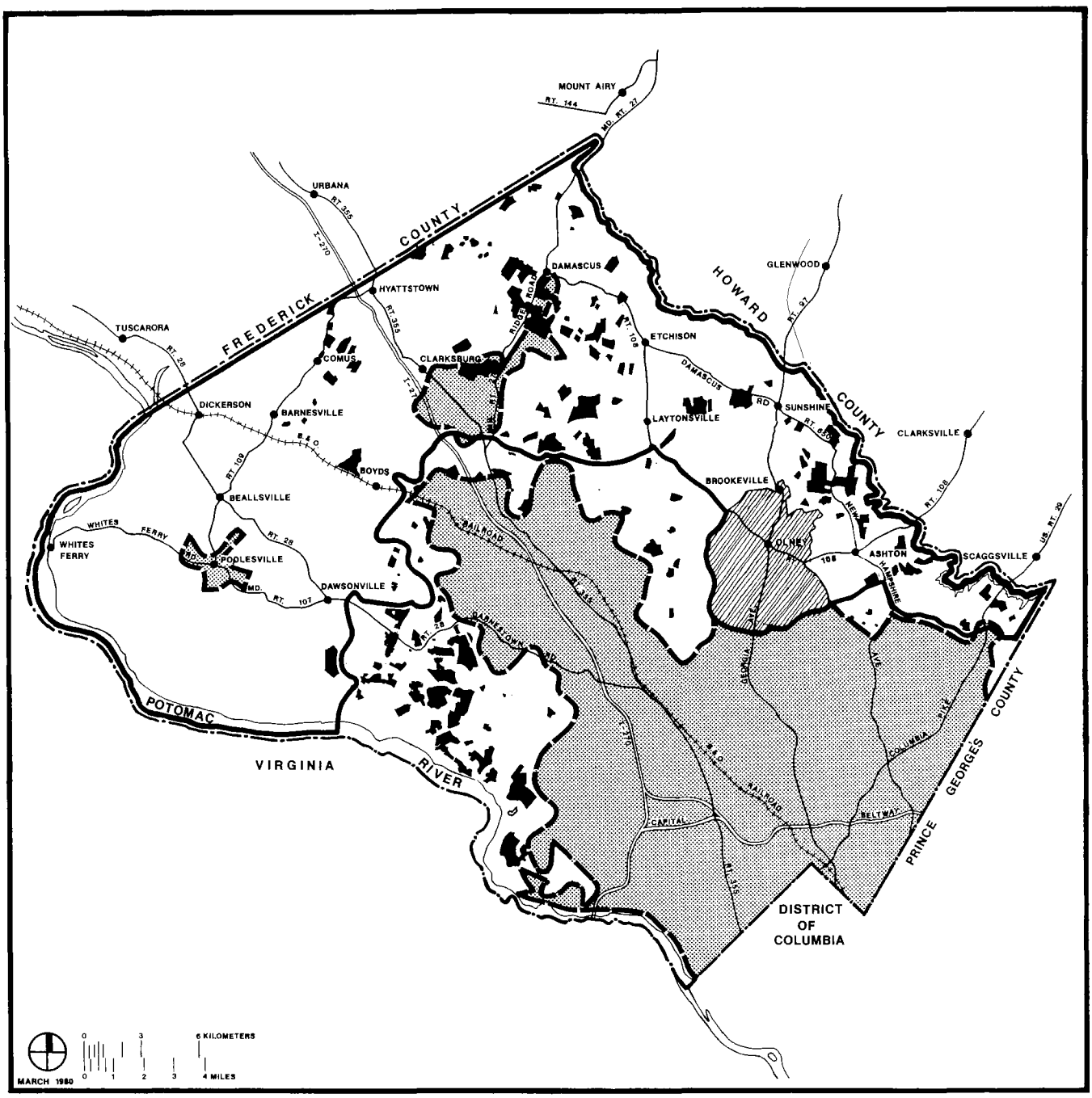
9 Special Projects Division, MCPD.

10 As Dallas Miner, an agricultural preservation consultant has stated, "rural zoning, which does inhibit rapid proliferation of sprawl-type development, has only a marginal influence on the rate of decline of agriculture as an industry. This statement was made in a report entitled Farmland Retention in the Washington Metropolitan Area, Washington, D.C., June 1976, page 28.

SUBDIVISION ACTIVITY AND SEWER ENVELOPE

Legend:

- Montgomery County Boundary
- Study Area Boundary
- Approved Preliminary Subdivisions 1968-1979 (thru 9/79)
- Greater Olney
- Sewer Envelope



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

CHANGE IN MONTGOMERY COUNTY TOTAL FARMLAND
BASED UPON TAX ASSESSORS CLASSIFICATION

Year	Total Acreage	Acreage Loss From Preceding Year	# of Parcels
1950	213,000*		
1964	155,305*	--	--
1971	150,284	8,079	--
1972	146,748	3,536	--
1973	143,784	2,964	2,147
1974	143,429	355	2,254
1975	142,271	1,158	2,288
1976	139,425	2,846	2,309
1977	138,625	800	2,350
1978	137,135	1,490	2,425
1979	131,516	5,620	2,376

*Source: U.S. Census of Agriculture

This chart indicates a loss of 18,768 acres from the assessor's farm classification over a period of 8 years. At the same time the number of parcels has steadily increased causing a decline in the overall average size of farm parcels.

NUMBER OF DWELLING UNITS
CONSTRUCTED ON SEPTIC SYSTEMS

YEAR	DWELLING UNITS
1960	321
1970	262
1974	253
1977	317
1978	575

This information illustrates the development pressure on the Agricultural Preservation Study Area which is generally within Sewer Category 6[11]. The lack of public sewer and/or water does not deter development activity.

[11] The Ten Year Water and Sewer Plan describes Sewer Category 6 as areas where there is no planned community sewer service.

APPROVED PRELIMINARY PLANS PER YEAR OF SUBDIVISION IN THE RURAL ZONE

For the five year period, 1968 through 1972, the average number of plans approved was only 22, while during the next five years, 1973 through 1977, the average number of plans approved was 42. This represents a significant increase of 91 percent over the first five year period. During the period 1978 to September 1979 the number of plans approved was 51.

NUMBER OF LOTS PER YEAR OF PRELIMINARY PLANS APPROVED IN THE RURAL ZONE

The period following 1972 shows significant change. In 1972, there were only 256 lots approved, whereas, in 1973 the number of approved lots increased to 915, representing a 257 percent change. The average number of lots during the period of 1968 through 1972 was 405 lots; during 1973 through 1977 the average was 654 lots. These differences showed an increase of 61 percent over the previous five year period. During 1978 more than 750 lots were approved while for the first nine months of 1979, 518 lots were approved.

CHANGE IN COUNTY FARMLAND ACREAGE 1974-1978
BASED UPON TAX ASSESSORS CLASSIFICATION

FARM PARCELS	1974*	1978*
Less Than 25 Acres	9,500 Acres	11,000 Acres
26 - 50 Acres	11,000	12,000
51 - 100 Acres	27,000	25,000
101 - 200 Acres	44,000	42,000
201 Acres and Above	52,000	47,000
	143,500 Acres	137,000 Acres

*Acreage rounded.

This information reveals that the farms 50 acres and above are experiencing pressure to convert to non-agricultural land uses or to smaller farm parcels.

The County is losing its land not only through subdivision of farmland acres, but from the fact that large parcels are in decline in terms of number and acreage.

AGRICULTURAL PRESERVATION STUDY AREA POPULATION HOLDING CAPACITY

The population holding capacity within the Agricultural Preservation Study Area is governed, to a large extent, by the suitability of land to support septic systems as regulated by the Montgomery County Department of Environmental Protection. This policy results in a population holding capacity that is less than the zoned population holding capacity. This "perk" policy is one of the most significant in limiting population density within the Study Area.

Although the population holding capacity is limited by this policy, it is imperative to develop not only land-use recommendations for this area, but a comprehensive public policy regarding the private use of alternative individual or community sewerage systems outside of the sewer envelope.

Current Study Area Population = 46,000 persons[12]

Population Holding Capacity Based on Zone (excluding areas 1/2 acre zoning or denser)[13] = 119,000 persons[12] (35,000 D.U.)

Population Holding Capacity Based on Septic System Suitability (excluding areas 1/2 acre zoning or denser)[13] = 55,000 persons[12] (20,000 D.U.)

EFFECT OF SEWER CAPACITY

The threat of moratoria, time horizon for proposed sewage plants, and land costs within the water and sewer envelope cause developers to seriously consider the Agricultural Preservation Study Area for development on septic systems.

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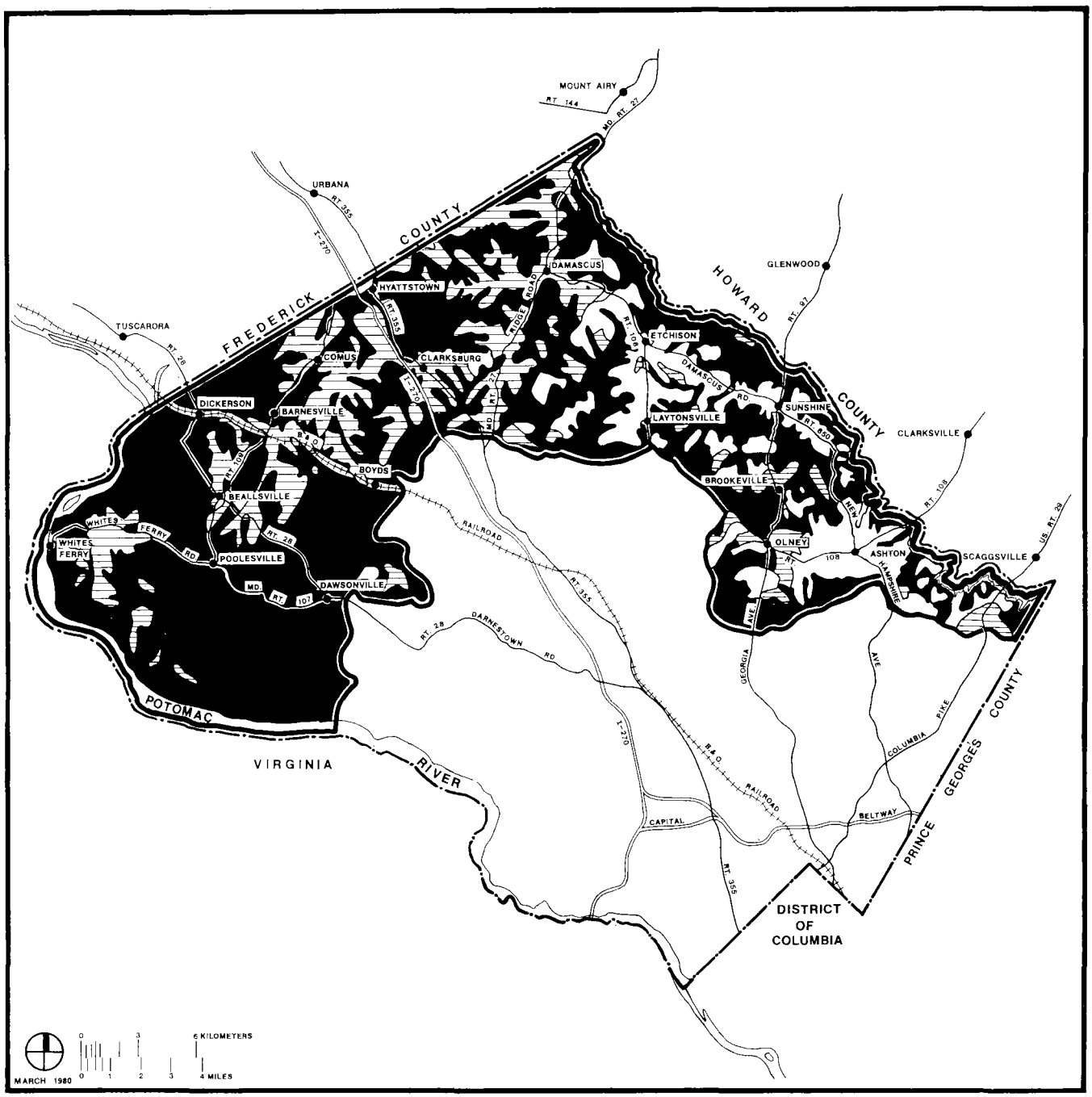
12 Based upon 1977 Census Update Survey, average household size of 3.48 in the Rural Zone, 2 percent vacancy rate.

13 Areas with higher than ½ acre densities will probably be served by public sewer and are generally located in the growth areas, thereby distorting the impact of this chart.

SEPTIC SYSTEM SUITABILITY



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

AREAS OF STATE CRITICAL CONCERN

Areas of State Critical Concern, which are illustrated on the Areas of State Critical Concern Map, would be threatened by development. Inappropriate development could negatively affect the protection of such areas. These areas have such unusual or significant importance that future use or development of these areas must be consistent with the proposed management techniques expressed in the county approved and state supported Critical Areas Plan.

POTENTIAL SENSITIVE HEADWATER AREAS

Farm conversion poses special problems in the Agricultural Preservation Study Area because of the existence of sensitive headwater areas. Development near such areas could have a deleterious impact upon water quality. This issue is addressed in detail in Chapter VI.

POTENTIAL STREAM IMPACT AREAS
STATE AREAS OF CRITICAL CONCERN
CONSERVATION AREAS

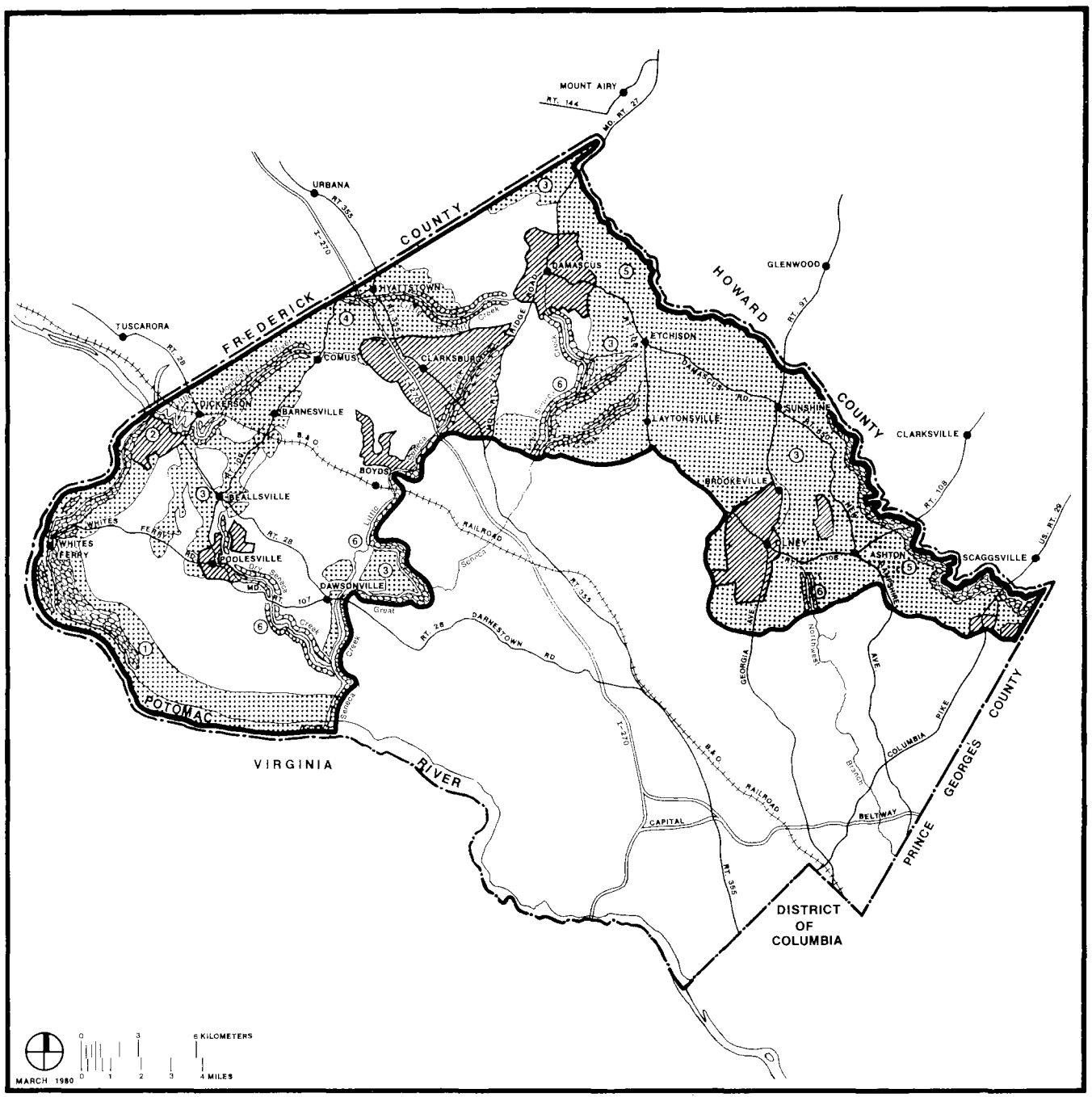
IDENTIFIED CRITICAL AREAS

① Potomac River and Adjoining Uses
② PEPCO Dickerson Generating Station
③ Prime Agricultural Land
④ Little Bennet-Sugarloaf Conservation Area
⑤ Patuxent River and Adjoining Uses
⑥ Delineated 100 Year Flood Plains

Legend:

- Montgomery County Boundary
- Study Area Boundary
- Potential Stream Impact Areas*
- State Areas of Critical Concern
- Conservation Areas (No Development)

* Limited to Streams and Valleys.



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

The Agricultural Community

Despite pressure on the Agricultural Preservation Study Area to develop, in 1979 Montgomery County agriculture remains an important part of the County.[14] Approximately 137,000 acres, or 40 percent of the total land area in Montgomery County, remains in agriculture. Approximately 107,000 acres are located in the Study Area and of that, approximately 80,000 acres are in the Rural Zone (See Generalized Working Farm). Overall, approximately 69 percent of farmland is either in the 5 acre or 2 acre zoning categories. Of the counties surrounding the metropolitan Washington area, Montgomery County ranks first in production of milk, corn, wheat, barley, sod, and nursery products.

In total productivity, Montgomery County's agricultural industry is not only economically sound, it is well diversified in crop distribution. According to the 1978 U.S. Department of Agriculture Census: Preliminary Data, more than 350 thousand bushels of wheat, oats, barley and soybeans were produced and 2.75 million bushels in corn alone. Approximately 18,000 head of cattle, 3,700 hogs, 5,000 horses and 6,000 head of poultry were produced as well. In addition, sod and nursery stock continue to be very important contributors to the agricultural economy; as a matter of fact, Montgomery County rates first in the state for sod production.

The scope of Montgomery County's farm productivity results in some interesting facts, County farms produce . . .

- Enough milk to provide residents 1/3 cup of milk daily;
- Enough beef for each resident to have 13 pounds each year;
- Enough grain for every resident to have 1-1/2 slices of bread per day;
- Enough vegetables to supply each resident with 13 pounds per year;
- Enough peaches and apples to supply each resident with 2 pounds per year.

In all, farm products will account for approximately $23,000,000 of the County's 1979 total gross productivity according to Robert Raver, Montgomery County Cooperative Agricultural Extension Agent. In any given year, Montgomery County agriculture supports farm related businesses that, in turn, support farming activity itself. According to the 1978 U.S. Census of Agriculture: Preliminary Data, there are 464 commercial farm operators in Montgomery County,[15] 194 of whom produced over $20,000 and 68 produced over $100,000 in gross sales for the year.

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14 The white paper series of reports prepared by Rene Johnson, County Agricultural Resources Coordinator, fully documents the characteristics and economic productivity of Montgomery County Agriculture, Reports I - VI, Office of Economic Development, 1979-1980.

15 A commercial farm operation is defined as one producing more than $2,500 in gross sales per year. There are 203 non-commercial farms in the County.

Countywide, there are approximately 137,000 acres of farmland (based upon March, 1978 farm tax assessments) comprised of approximately 2,400 individual parcels. More than half of these farm parcels (1,300) are under 25 acres. The average size farm lot under 25 acres is 9 acres. The overall average parcel size is 58 acres. More than 64 percent of the farmland area is accounted for by approximately 19 percent of all parcels. The average farm has an assessed value, for tax purposes, of $380 per acre.

Size Range of Farm Parcels* In Acres[16]	Total Acreage Within Size Range	Average Within Size Range	Approximate No. of Parcels
0 to 25	11,000	9	1,300
25 to 50	12,000	36	330
50 to 100	25,000	73	350
100 to 200	42,000	143	300
200 to 500	47,000	305	150
Total County	137,000 acres	58 acres Average Size	2,400 parcels

* A farm may consist of one or more parcels.

Surprisingly, the amount of harvested cropland acres has increased, since 1974, by approximately 4,500 acres due to the increased profit margin possible with grain production as well as improved yields.

In 1978, approximately $16,800,000 was contributed to the economy in Montgomery County through farm production expenses. The value of total farmland and buildings is a healthy $209,000,000 with an additional $21,100,000 in agricultural machinery and equipment.[17]

In terms of international trade, much of the corn and wheat raised in Montgomery County is exported. Nationwide, the nonagricultural foreign trade has an annual deficit in excess of $48 billion, farm product exports in excess of farm product imports will manage a surplus in 1978 of over $13 billion. The value of our farm exports are important to offset increased prices of oil imports. However, all of the dairy, livestock, nursery, fruits, vegetables, and sod products are used in the Washington Metropolitan Area.

The 1978 Department of Agriculture Census: Preliminary Data indicates that farming in Montgomery County remains largely a family-oriented enterprise. This is so despite the increasing number of farm operators, 54 percent, who make most of their income from other occupations. Two percent of the farms are controlled by closed family corporations, while another 12 percent are run as partnerships. A large proportion of the farmers are working land long owned by the same family, 80 percent of the farms are individual or family operated and/or owned. Farmers have increased the size of

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16 Duplicated number accounted for only in the lowest range in which it appears. Total acreage does not include historic farms.

17 1978 U.S. Census of Agriculture: Preliminary Data.

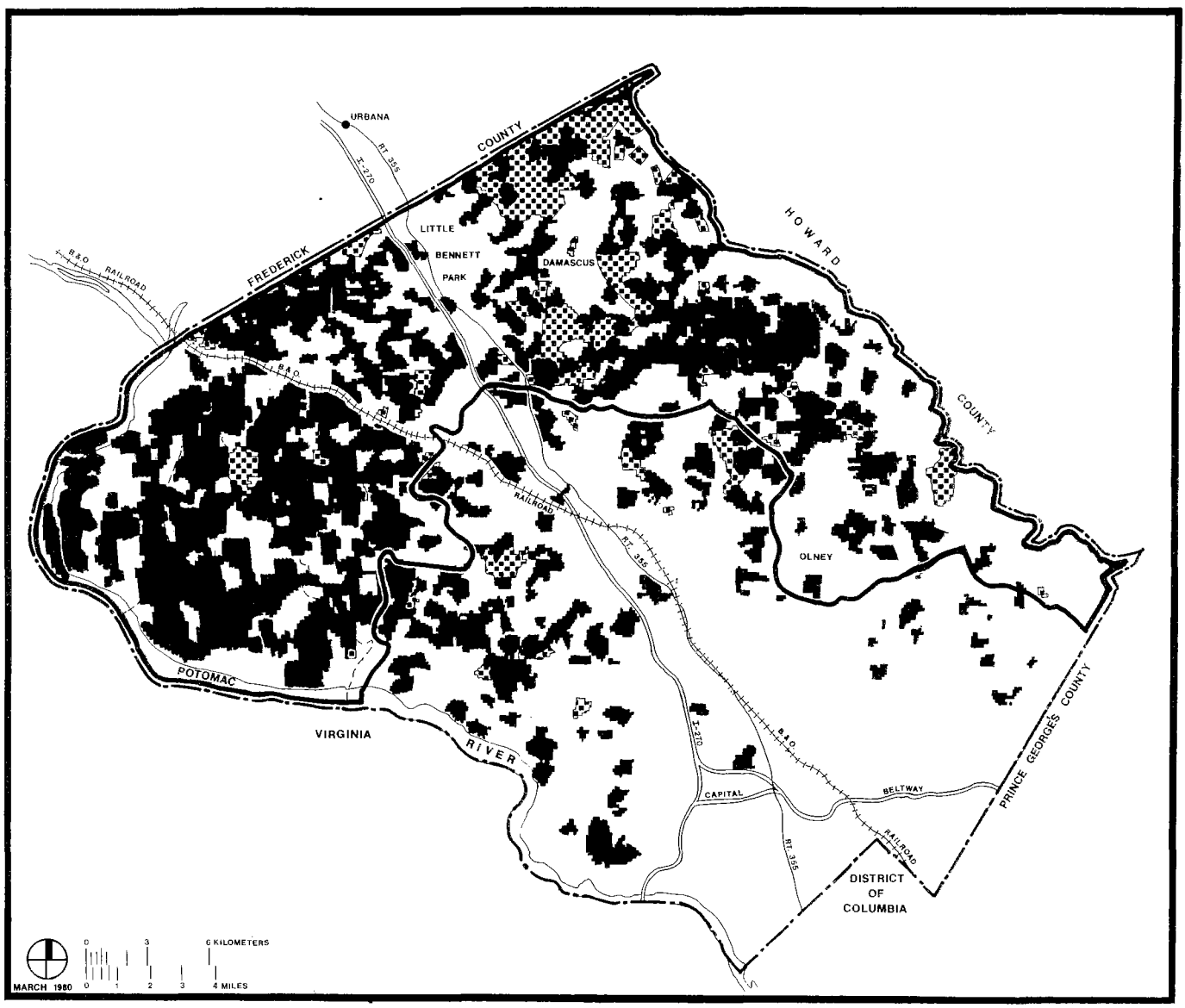
GENERALIZED WORKING FARM MAP

(MSDAMP COMPUTER MAP)
DATE: 3/78

Legend

- Montgomery County Boundary
- Study Area Boundary
- Working Farms 100 Acres or More
- Working Farms 99 Acres or Less

Since production of this computer map, additional farmland has been converted, especially in down-county areas.



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

their operations by renting one out of every two acres. One-third of the farmland owners operated farms consisting of their own land and land rented from other farmland owners.

The proportion of farmers with over $40,000 in product sales has increased from 9.5 percent in 1969 to 19.5 percent in 1978; 68 farms had sales of $100,000 or more in 1978. According to the 1978 U.S. Census of Agriculture: Preliminary Data classes at the lower end of the spectrum have shown an even greater increase. In most cases, income from other sources allowed these marginal operations to remain an important part of the agricultural community.[18] According to Rene Johnson, Agricultural Resources Coordinator for Montgomery County, a viable farm operation does not require hundreds of acres or a large equipment complement. A look at the data in Appendix B, Small Farm Economics, indicates that considerable income can be made on small acreages, as small as 25 acres, or less, relying upon family labor and non-farm income.

A significant farm ownership trend that should not be overlooked or underestimated in Montgomery County is the number of part-time farmers that depend, in part, upon non-farm sources of income. "Of the commercial farmers, 54 percent worked some time away from the farm and 46 percent of them were essentially employed full-time elsewhere."[19] This trend is sweeping the industrialized countries throughout the world as well.[20]

The reasons for this trend include a) marginal farmers who are unwilling to relinquish their farming lifestyle, or b) the availability of non-farm employment alternatives near metropolitan areas, and c) the fact that once marginal farmers establish alternative non-farm sources of income, their ability to operate a successful farming operation increases. Farmland preservation policies should not ignore this trend that contributes to the support of the critical mass in Montgomery County.

Montgomery County still has a large amount of highly productive farmland. Overall, the County has a considerable amount of prime soils, approximately 112,000 acres.[21] These prime soils, Soil Types I and II are productive with a minimum amount of land management, and are related to the high quality land found in Howard County.[22]

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18 According to the 1978 U.S. Census of Agriculture, the number of farms with sales of less than $20,000 increased from 124 to 171 between 1974 and 1978.

19 Rene Johnson, white paper report, "Changes in Montgomery County Agriculture, 1969 to 1978," January 1980, Page 5.

20 OECD Agricultural Policy Reports, "Part-time Farming in OECD Countries," General Report, Paris, 1978.

21 USDA Soil Survey Series, Montgomery County #7.

22 The Work Force for the Preservation of Howard County Farmland, Report 1976, Page 12.

These soils, though highly productive for agricultural crops, are also the prime soils for development. In the Seneca, Muddy, Bennett, Watts and Monocacy watersheds, a combination of Soil Types I, II, III, and IV are evident. Soil Types III and IV,[23] which have more agricultural production problems, are nonetheless well suited to particular types of agriculture. Good farming practices such as no tillage/limited tillage techniques, which increases the overall productivity of these soils, is very important in Montgomery County where all soil types have the potential for erosion. The farmer of today is doing the majority of his intense cropping on Soil Types II and III, while 20 years ago the majority of intense cropping was taking place on Soil Type I. The Montgomery County farmer is being pushed from the naturally high productive soils by development, according to Bobby Rakestraw, SCS District Conservationist. (See Generalized Soils Map.)

It is clear that farming is an economically viable industry operating on both prime and productive lands in Montgomery County and contributes to the economic well being of the regional agricultural community. However, the economic well-being of the industry is being threated, since a) the Rural Zone is ineffective, alone, in reducing farmland conversions, b) Montgomery County can no longer rely upon existing zoning techniques and a septic system suitability policy,[24] a perk policy, to guide future population density and c) the lack of public water and/or sewer does not deter development activity. Definitive new land use policies and zoning techniques must be developed that specifically address the future disposition of land in the Study Area with emphasis upon farmland preservation.

Farmland and open space are irreplaceable and valuable natural resources, and should be protected. The loss of such a viable agricultural industry is a very real problem. In fact, a recent survey by the Harris Poll (Louis Harris and Associates, Inc.,)[25] for the U.S. Department of Agriculture revealed that a majority of Americans consider the loss of prime farmland to be a serious problem. The survey also found a "strong and consistent" preference for allocating more scarce resources to agriculture . . .and by two to one, those interviewed agreed that preservation . . .for its own sake is not the goal but preservation to produce goods.

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23 There are 145,000 acres of Soil Types III and IV in the County.

24 This is especially true in light of recent advances in small scale community sewerage system technology; these systems can overcome the most severe of soil conditions.

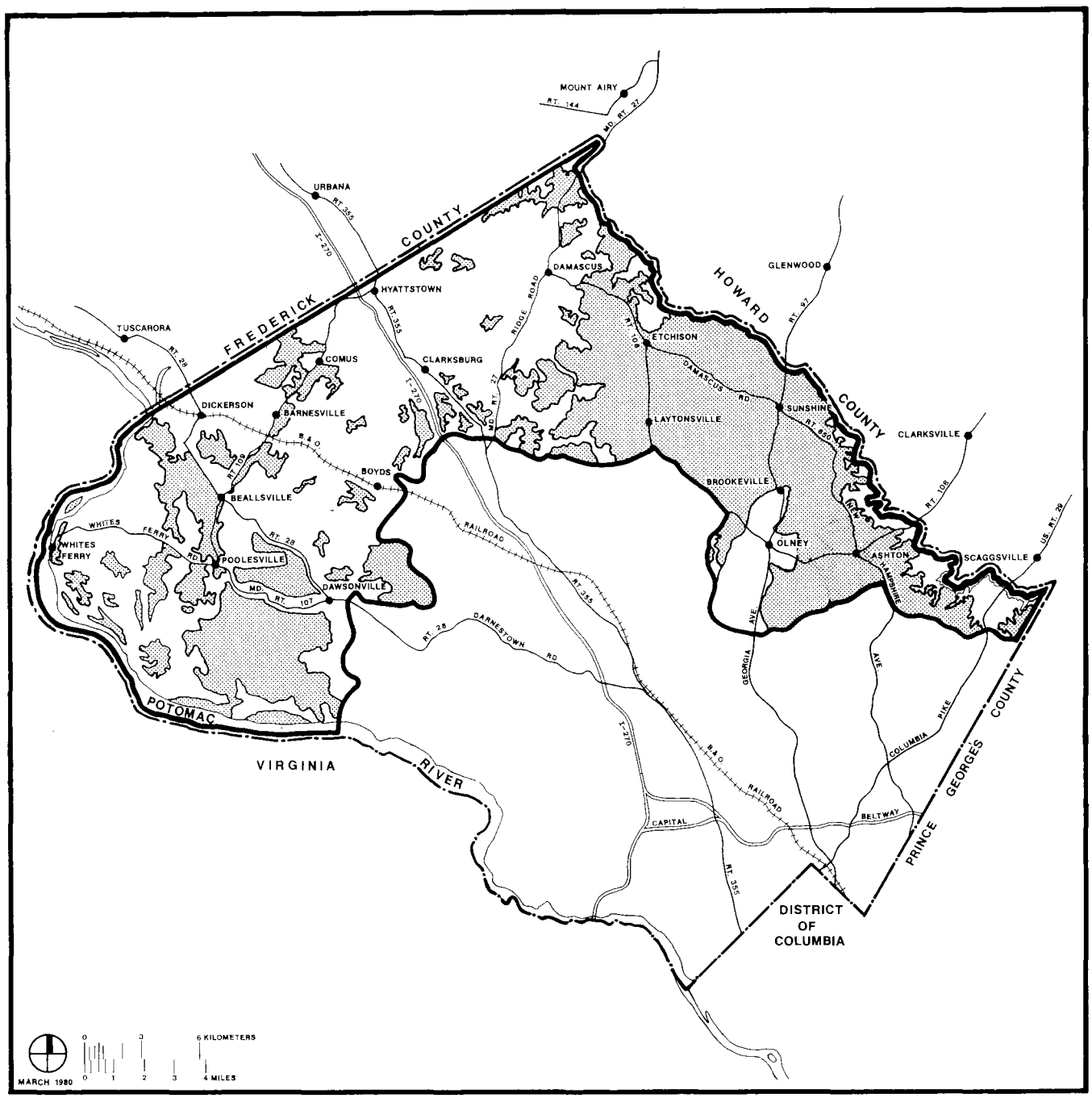
25 As reported in the Land Use Planning Report, published by Business Publishers, January 21, 1980, page 20.

GENERALIZED SOILS MAP

Legend:

- Montgomery County Boundary
- Study Area Boundary
- Soil Type I and II - Soils that can be cultivated regularly with wide range of uses.
- Soil Type III and IV Soils that can be cultivated regularly under careful management.

A refined version of this map is available from the Soil Conservation Service, Important Farmlands Map, November 1979.



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

CHAPTER IV: FARMLAND PRESERVATION AS A PUBLIC PURPOSE

OVERVIEW

It is in the public interest to preserve farmland. In order to develop a preservation strategy that regulates land use, it is important to first clearly define the need for such a strategy in terms of the public purpose. The definition of the public purpose provides the basis for future government action and makes those actions more defensible and understandable.

Farmland preservation not only involves the preservation of individual farms, productive soils, and a way of life, but it meets a variety of national, regional, state, and local objectives.[26] The need to preserve farmland in a County that already provides for a balanced series of growth alternatives can be justified in seven broad public purpose areas. These areas are not necessarily in a priority listing:

A. Control of Public Costs and Prevention of Urban Sprawl
B. Adherence to County Growth Management Systems
C. Preservation of Regional Food Supplies
D. Energy Conservation
E. Protection of the Environment
F. Maintainance of Open Space
G. Preservation of Rural Life-Styles.

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26 Stanley D. Schiff, Agricultural Research Consultant, "The Issues of Farmland Preservation," a paper presented at the First American Land Forum, Cosmos Club, Washington, D.C. December 20, 1978.

PUBLIC PURPOSE ELEMENTS

A. Control of Public Costs and Prevention of Urban Sprawl

Studies conducted by the Montgomery County Planning Board,[27] the Council of Governments, and other planning bodies suggest that there is substantial benefit in the compact form of growth encouraged by the General Plan. Specifically, the Metropolitan Growth Policy Statement, published by the Metropolitan Washington Council of Governments in 1977, as a regional policy document intended to provide a basis for regional growth decisions, it calls for a compact growth pattern that will conserve the region's air, water, land, and energy resources by promoting development in specified growth centers with particular emphasis on areas served by mass transit.

The prevention of urban encroachment into the Study Area promotes compact urban development in designated growth areas, as called for in the Metropolitan Growth Policy Statement. The energy and fiscal implications of urban sprawl have been well documented.[28] Sprawl costs money and with limited fiscal resources, it is important that non-renewable land resources be preserved, thereby encouraging orderly development and growth. This is especially true in an era of cost consciousness and in-depth examinations of government services and related costs. If development in the Study Area can be partly guided in terms of location and timing through a farmland and open space preservation program, the County could maintain additional control of public costs and urban sprawl, while preserving a viable industry.

B. Adherence to County Growth Management System

The Growth Management System, detailed in Chapter I, makes it possible for officials and the public to understand the relationships that exist between growth and facilities, and the consequences of each on the General Plan's proposed development pattern. One element of this system, the Comprehensive Staging Plan (CSP), places interim limits on growth that are keyed to the provision of additional public facilities, so that a relatively constant level of public service can be maintained over time. Since the CSP is consistent with General Plan recommendations, no new major development is planned in the Agricultural Preservation Study Area with the exception of Clarksburg. This Functional Master Plan, then, carries out the intent of the General Plan, the Montgomery County Growth Management System, and more specifically the recommendations of the Comprehensive Water Supply and Sewerage System Plan.

C. Preservation of Regional Food Supplies

Preserving farmland plays a significant role in food production in the State. Montgomery County's contribution is necessary for the State to maintain its current level of producing 55 percent of the food needed by State residents. The

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27 The Second Annual Growth Policy Report, Fiscal Impact Analysis, MCPB, 1975.

28 Real Estate Research Corporation, The Cost of Sprawl, Washington, D. C., 1974.

importance of agriculture within the state is well documented in "Breadbasket of the Revolution, Maryland Agriculture 1776-1976," written by the Maryland Agriculture Week Committee, January, 1976.

Also, the significance of Montgomery County agriculture increases, when viewed as part of a larger regional agricultural community.[29] For example, the dairy economy and the dairyland itself of Montgomery County helps support the dairy community in Frederick County, which is the top milk producing County in the area. Because most of the supply dealers are now located there and because the agricultural community is stronger, the Montgomery County farming establishment relies upon, and is an integral part of, the dairy community of the neighboring jurisdiction. The demise of farmland here will affect neighboring farm areas by reducing the number of productive acres and by pushing the urbanizing fringe further and further out, thereby threatening productive farmland in Howard and Frederick Counties. The loss of agriculture in Montgomery County will increase development pressures in Howard County and Frederick County at a time when citizens, farmers, and decision makers there are struggling to retain a viable farm community.

D. Energy Conservation

When farming is located in proximity to primary markets, urban centers or international ports (Baltimore), energy is conserved by reducing transportation cost to the marketplace, and, in turn, can influence the cost of the product to the consumer.

In addition, greater utilization of public transportation is made possible if a compact growth pattern is implemented. According to the Metropolitan Growth Policy Statement, overall energy conservation is negatively impacted without a compact form of growth. A dispersed pattern of growth decreases reliance upon public transportation and encourages automobile travel. The Statement concludes that "automobile travel demand. . . would increase beyond the capacity of existing and currently programmed highways, and the facilities required to satisfy such a demand would cost far more than can currently be expected. . . per capita energy consumption would continue to climb, as would overall regional energy consumption."

E. Protection of the Environment

Farmland preservation protects the rural environment--especially, sensitive headwater areas, conservation areas, wildlife habitats, floodplains, etc., from the impact of development. It also serves as a "clean air shed" to clean the atmosphere, as well as a mechanism to protect the quantity and quality of water resources. A large share of urban flood problems stems from a decrease in area-wide infiltration and retention due to paving and building development with the resulting increase in stormwater runoff. Urbanization with its alteration of natural contours and permeability of the earth also increases the irregularity of

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29 A case for farmland preservation in the Washington Metropolitan Area was made very strongly in a report entitled, Farmland Retention in the Washington Metropolitan Area, Dallas Miner, June 1976.

the surface water flow, lessening its reliability as a water supply source. While properly managed farmland is not as effective as thickly forested land, it is superior to dense and extensively paved suburban areas.[30] A detailed explanation of the effect of farmland preservation upon the environment can be found in Chapter VI.

F. Maintenance of Open Space

The open space qualities of farmland preservation are significant. It provides productive, privately maintained agricultural open space with environmental benefits that include rural aesthetics and air and water quality.

Similarly, the significance of open space, as a result of large lot residential clustered development, cannot be underestimated. These open space areas are vital to the buffering of the agricultural preservation areas and can also provide leaseback arrangements for interested farmers.

G. Preservation of Rural Life-Styles

The County has a rich agricultural heritage, a blend of two cultural traditions, one stemming from English planters who arrived in the 18th Century, the other from Pennsylvania German and Quaker farmers of the 19th Centruy. These two farming and cultural traditions are reflected in the blend of building materials and types evident in the County. The entire agricultural scene describes a culture and is as instructive as a museum. Preservation encourages and fosters a rural lifestyle important to Montgomery County. It is still possible today to see vestiges of Montgomery County's agrarian heritage in the rural villages as well as in parts of the Study Area. It is a viable land use alternative for those who desire such a life style.

In order to meet the objectives expressed in this Chapter, Montgomery County must provide a wide range of housing and employment opportunities so that a demonstrated development potential provides adequate development alternatives without the need to extend utilities beyond those already planned. Montgomery County offers a full range of residential, commercial, and industrial development alternatives within the water and sewer envelope. More than 15 separate zones permit a variety of residential densities in excess of two units per acre. There is sufficient vacant and/or easily redevelopable land for approximately 140,000 additional dwelling units exclusive of the Study Area. Even using the high forecast for the County, total dwelling unit capacity is enough for the next 35 years of growth. Employment opportunities within the water and sewer envelope could easily double without exceeding the total zoned capacity. In addition, if a Transfer of Development Rights Program (TDR) is utilized additional housing resources will become available as a result of the residential density bonuses.

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30 The Functional Master Plan for Seneca and Muddy Branch Basins, MCPB, 1975.

TOWARD A BALANCED PUBLIC POLICY

Fairness in public policy deals not only with equity among similar individuals, but between the interests of private property owners and those of the public. This section shows that there is a very important public interest that is served in the preservation of land suitable for agriculture and open space in the county. The proposed regulations, expressed in Chapter V, are designed to protect that public interest. If there were no public interests being served, a preservation program with limitations upon the density of development, as expressed in Chapter V, could not be implemented.

The Courts have consistently upheld regulations that diminish property values so long as a reasonable use of the property remains. This Plan demonstrates, and its recommendations reflect, that agriculture is a reasonable use in appropriate areas of Montgomery County. The inquiry as to the proper preservation technique should not stop here, however. As this Plan has shown, excessive development potential raises the value of land beyond its agricultural worth, thereby contributing to the decline of farming. Yet, farmers rely upon their land as a source of cash in bad times, as a retirement income, and as a needed source of collateral; and, consequently, the economic liability of the farming activity is very much a function of the value of farmland itself. A successful preservation strategy, therefore, must strike a balance which will limit the economic return available from subdivision and development while retaining the value essential to the survival of successful farming operations.

A PUBLIC POLICY COMMITMENT

Since farmland preservation serves a series of public purposes, Montgomery County must commit itself to the preservation of farmland and adopt a plan which supports that goal. In the absence of a specific preservation effort, farmland will continue to be converted to residential, commercial, and industrial uses.

Without a County farmland preservation program, the future of farming in Montgomery County is bleak. Recent trends indicate that in five years, we will lose approximately 6,700 acres of farmland, and in ten years 13,300 acres will be lost to suburban growth. Given the current trends, in seventy years no farmland of any significant size will remain in the County; this will probably occur much sooner since the industry will collapse well before the last cow dies!

CHAPTER V: FARMLAND AND RURAL OPEN SPACE LAND USE PROGRAM

OVERVIEW

The 1973 Rural Zone Sectional Map Amendment, which affected the area generally recommended for farmland preservation was implemented to provide for "lower densities for use in the rural sections, for the protection of agriculture, environmental features, extensive recreational facilities, and residential use of a rural character." Since that time several significant changes have occurred within Montgomery County.

1. Farming has been shown to be a viable industry and a reasonable use of the land.

2. Preservation of farmland has been shown to be in the public interest.

3. The existing Rural Zone, alone, has been shown to be ineffective in protecting farmland from conversion to non-agricultural uses.

4. The increasing cost of energy, in recent years, strengthens the rationale of the General Plan because the growth management policies which recommend a compact form of development, and decrease the cost of sprawl to the homeowner, taxpayer, and consumer.

5. The need to preserve regional food supplies close to primary markets and international ports has become vital to energy conservation, the balance of payments, and the cost of a basketful of groceries.

6. Active farmland preservation programs within the State and region have been established.

As a result of these changes, this Functional Master Plan recommends that 110,000[31] acres of Montgomery County remain rural with agriculture as the most encouraged use. The 27,000 acres in the growth centers of Clarksburg, Damascus, Olney, and Poolesville serve the commercial and residential needs of the Study Area[32] while the open space needs are met on 26,000 acres in the Goshen/Woodfield Open Space Area, Lower Patuxent Conservation Area, Olney Rural Open Space Area, Boyds Master Plan Area, Sandy Spring/Ashton Area, and in other areas outside of the Agricultural Preservation Study Area including Potomac, Darnestown, Rock Creek, and Cloverly thereby implementing the overall objectives of the General Plan. A generalized land use and zoning map may be found in this Chapter. However, a detailed zoning and land-use map is included in the back pocket of this Plan.

AGRICULTURAL PRESERVATION STUDY AREA
LAND USE DISTRIBUTION

AGRICULTURAL RESERVE	110,000 Acres
RURAL OPEN SPACE AREAS	26,000 Acres
Goshen/Woodfield Open Space Area	
Olney/Sandy Spring/Ashton Rural Open Area	
Lower Patuxent Conservation Area	
Boyds Master Plan Area	
GROWTH CENTERS	27,000 Acres
Damascus Planning Area	
Clarksburg Planning Area	
Olney Town Center	
Town of Poolesville	
STUDY AREA TOTAL.....	163,000 Acres

This Plan, then, proposes the use of the State Agricultural Land Preservation Program, rural clustering (Rural Cluster Zone - RC), transfer of development rights (Rural Density Transfer Zone - RDT), and the creation of a County Development Rights Revolving Fund to preserve farmland. These proposals are recommended to complement a series of positive overall government policies that are consistent with the intent of the preservation program expressed in this Plan. The policies are detailed in Chapter VI and VII.

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31 This 110,000 acre figure is gross; it includes existing rural subdivisions, rural communities, public lands, etc. Also, the Olney Planning Area recommendations for preservation of 15,300 acres of farmland have been included in the overall 110,000 acre figure.

32 When the revised Clarksburg and Damascus Master Plans are revised, additional farmland and open space acreage probably will be added to the total acres protected since both planning areas will not be developed entirely.

Preservation in this Plan, is one element in a comprehensive growth management framework that utilizes a wide range of public policies and regulatory techniques that are responsive to the different types of farmland and rural open space areas and the unique development pressures affecting them. It is a positive program designed to channel growth into designated growth areas so that market forces are not stopped, but deflected. Preservation and urban policy must complement each other. According to the National Association of Counties, Research Foundation Study, Disappearing Farmlands.[33] "Any one approach to farmland preservation is not likely to be effective, if other government programs or policies are inconsistent with it. For example, agricultural zoning can be undercut, if the local capital improvement plan calls for the extension of urban services into prime farming areas. Similarly, agricultural districting and the purchase or transfer of development rights can help preserve farmland, but may not succeed in preserving farming itself, if state or local policies do not support agriculture as an ongoing enterprise. And state and local initiatives themselves may be rendered ineffective if federal actions are not consistent with them. A coordinated farmland preservation strategy that meshes all the policy tools of government is the approach that is most likely to succeed."

In Montgomery County, the success of the existing growth management strategy is based upon private sector regulation and public facility planning within a coordinated public policy context; a similar approach has been utilized in this farmland and rural open space preservation program.

PRESERVATION FRAMEWORK

This Plan reflects certain assumptions about farmland and rural open space preservation in the County. These assumptions are critical to understanding the preservation program, since they provide the basis for the plan recommendations.

PROGRAM ASSUMPTION 1: Farmland and rural open space preservation serves an important public purpose.

This Plan is based upon the assumption that preservation is in the public interest and local government plays a critical role in the protection of that public interest. This issue was discussed in Chapter IV, Farmland Preservation as a Public Purpose Issue. The preservation of farmland sustains a cultural landscape that is historically and immediately important to our society, it offers significant environmental values in the management of soil, water, and air resources of the region, it encourages an orderly form of development and the provision of public services in a logical and cost-effective manner, and it functions as an integral part of agricultural preservation activities within the entire region.

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33 National Association of Counties, Research Foundation Study, Disappearing Farmlands, Washington, D.C. December 1979, page 15.

PROGRAM ASSUMPTION 2: A critical mass of farmland and rural open space is located in the Agricultural Preservation Study Area.

The Agricultural Protection Study Area forms an identifiable and cohesive critical mass of farmland. It supports a viable agricultural community.

PROGRAM ASSUMPTION 3: Farming is a reasonable land use in Montgomery County and is an economically productive industry.

This Plan is based upon the fact that farming is a practical and reasonable use of the land and is a proven productive industry, especially when considered as part of the larger Piedmont agricultural community.

PROGRAM ASSUMPTION 4: A comprehensive agricultural preservation program strengthens the basic objectives of the General Plan.

The agricultural preservation program is fundamental to the preserving of the Wedges expressed in the General Plan. This Plan confirms the recommendation for satellitte growth areas in Clarksburg, Damascus, Olney, and Poolesville, as expressed in the General Plan and detailed in adopted and approved area master plans. For the first time, this Plan offers an effective means of preventing urban sprawl from consuming the Wedge area included in this Agricultural Preservation Study Area.

PROGRAM ASSUMPTION 5: It is unrealistic to assume all farmland and rural open space can or should be preserved in the Agricultural Preservation Study Area.

Preservation does not mean that every farm, regardless of size, productivity or location should be preserved forever. A farmland preservation program should be selective. Preserving a small farm which is surrounded by residential development, for example, or one which lies on the edge of an urban area, may prevent orderly development and result in a leap frog expansion pattern. Preservation policies should be sensitive to surrounding land use activities and future growth potential, and farmland conservation areas should be designated accordingly.

This Plan recognizes the need for commercial and residential uses to serve the agricultural industry and the rural community at large. In accordance with the General Plan, this Plan supports growth centers of various sizes and in accordance with adopted plans in Clarksburg, Damascus, Olney, and Poolesville.

The Plan also recognizes that some residential development will occur even in productive areas. Therefore, residential development options are available in farming areas but only on a limited basis and in a manner that is consistent with preservation policies. This is why the plan proposes two rural land use categories; one emphasizes agriculture, the other open space.

There are some 30,000 acres of farmland outside of the Study Area boundary. These farms do not create an identifiable critical mass, and are not generally critical to the survival of Montgomery County agriculture. Generally, they are large scattered farm parcels. On some farm tracts sewer service is available and more intense zoning has already been applied or is obtainable. These farms should be encouraged to develop, since withholding them from urban use works counter to public policy and forces growth into fringe areas. There are other farm tracts within the envelope that should be encouraged to remain in farm use for a period of time as specified by area master plans and staging policies.

PROGRAM ASSUMPTION 6: Present zoning is ineffective in stopping residential conversion.

The agricultural portions of the County are now zoned for 2-acre or 5-acre lots. The Rural Zone, which was imposed by Sectional Map Amendment in 1973, is designed to limit non-agricultural uses and restrict any residential lots to five acres or more. The Rural Zone does not require that farming continue, or even prevent 5-acre lots from pre-empting farmland. Recent subdivision activity, as noted in Chapter III, highlights the inability of this zone, alone, to prevent the loss of farmland. A review of rural subdivision plans submitted throughout the County shows that lot sizes are now ranging from 4 to 15 acres. Thus, even the lowest residential density now available in Montgomery County, 5 acres, only slows but does not stop farm conversion.

PROGRAM ASSUMPTION 7: A comprehensive preservation program should include both traditional and innovative zoning powers and conservation techniques.

Planning has historically been oriented toward urban development and urban land use needs. Most zoning ordinances for example, contain numerous categories relating to urban uses but none regarding agriculture. Rural residential provisions are usually intended to accommodate suburban development and conserve open space rather than to retain farmland.

Land use regulations and economic incentives are needed which specifically relate to agricultural preservation. Zoning must be adapted to agricultural needs and supplemented by programs which recognize farming as an essential economic activity. Existing tax laws which reduce farm assessments have a temporary effect. They benefit current farmers and prolong their willingness to farm but they do not, in the long run, prevent the overall conversion process.

PROGRAM ASSUMPTION 8: Agricultural support services are important aspects to the continuance of farming.

A viable agricultural community requires nearby sources of seed, feed, fertilizer and farm equipment. It requires an available supply of labor and it requires a system for marketing its products.

It is vital to the economic well being of the agricultural community to develop appropriate programs and land-uses that encourage the continuance of farming. Such uses must be permitted and encouraged in agricultural areas, since they are compatible with and essential to it. The expanded list of permitted and special exception uses already expressed in the Rural Density Transfer Zone (RDT) and Rural Cluster Zone (RC) have gone a long way in supporting agricultural activity and related support services.[34]

PROGRAM ASSUMPTION 9: A comprehensive preservation program should not negatively affect housing opportunities for Montgomery County residents.

Unless a scarcity can be claimed for large rural lots, the proposed program cannot be expected to significantly affect the supply or price of housing in Montgomery County.

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34 A summary of these zones is included in the Appendix A.

PRESERVATION LAND USE POLICIES

The Proposed Land Use and Zoning Map illustrates the spectrum of recommended land use categories which represent the different land use policies to be applied. These land use policies make a distinction between the Agricultural Reserve, Rural Open Space, rural communities and villages, and growth areas such as the corridor cities and satellite communities.

- Agricultural Reserve (Primary Agricultural Areas)

  This area includes the majority of the remaining working farms, as well as other land uses that will serve to define and support those working farms. It represents the County's critical mass of farms and is the focus of the Plan's farmland preservation policies.

- Rural Open Space (Secondary Agricultural Areas)

  This area is generally located close to the developing areas. Although the soils are productive, much of the land has already been lost to residential development. The farms that remain are interspersed with rural subdivisions. Policies for the Rural Open Space Areas encourage a carefully planned mix of residential and farming uses.

- Rural Communities and Villages

  These are historic rural settlements that were not affected by the 1973 Rural Zone Sectional Map Amendment of the upper county. Today the rural communities and villages remain zoned R-200 (1/2 acre lot sizes), or as in Boyds and Sandy Spring/Ashton which are governed by separate local area master plans. This functional plan reconfirms and is consistent with land use recommendations of those area master plans. There are also rural communities that have their own planning and zoning authority, Barnesville, Brookeville, and Laytonsville; therefore, recommendations are not made for those areas. These communities often provide limited number of commercial services to area residents. This Plan supports limited convenience and agriculturally related commercial activities in the rural settlements.

- Corridor Cities and Satellite Communities (Growth Centers)

  These are areas designated for development in conformance with the General Plan. The extent and intensity of development will be or already has been identified in area master plans. As a result, this Plan makes no specific recommendations for the Clarksburg, Olney, and Damascus Planning Areas or the Town of Poolesville.

  A portion of the Clarksburg Planning Area is identified in the General Plan as a corridor city and occupies a strategic location in the I-270 corridor; it is in the path of future corridor development. The Comprehensive Staging Plan (CSP) has already placed half the planning area in a sewer priority

category which will permit public sewer subdivision applications between 10 and 20 years.

The Olney Planning Area was the subject of a recent area master plan. Recommendations confirmed agricultural and rural open space uses within the planning area and utilized the Rural Density Transfer Zone (RDT) and Rural Cluster Zone (RC). In addition, a TDR receiving area for use only within the planning area was identified in the greater Olney area. This Plan confirms the land use and zoning recommendations of the Olney Master Plan.

The Poolesville Vicinity and the Town of Poolesville were the subject of recent master plans. Recommendations in those plans confirmed agriculture as an appropriate land use in the areas surrounding the Town of Poolesville and confirmed limited commercial development within the Town designed to serve, in part, the agricultural community.

The Damascus Planning Area is currently the subject of a study for a revised area master plan which will probably include its own preservation program. The General Plan calls for a satellite community in Damascus; this designation should be reassessed in light of the upcoming area master plan because of its location within the critical mass of farmland. The upcoming plan will also identify the overall growth ceiling, environmental constraints, and transportation network.

PRESERVATION RECOMMENDATIONS

The purpose of this section is to recommend a planning framework to preserve the 110,000 acres designated for the Agricultural Reserve and 26,000 acres proposed for Rural Open Space Areas. Since one of the most serious threats to the Agricultural Reserve and Rural Open Space Areas is development[35] the recommendations focus on policies that a) stabilize land values; b) minimize development pressures; c) avoid premature and fragmented subdivision; d) protect agricultural practices; e) improve agricultural support services; f) maintain a critical mass of agricultural land; g) relate County farmland preservation efforts to those of our neighboring counties; and h) channel growth into Clarksburg, Damascus, Olney Town Center, and Poolesville as recommended in the General Plan. The recommendations are based upon the premise that a positive preservation program can be justified to be in the public interest and that a wide spectrum of planning techniques developed to ZONE IT, REGULATE IT, TDR IT,[36] AND/OR BUY IT will be successful in protecting that public interest.

The four recommended techniques to preserve farmland and rural open space are the State Agricultural Land Preservation Program, Rural Clustering, Transfer of Develop-

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35 Other factors affecting farmland conversions include production costs, labor supply, profit margins, taxes, etc.

36 Transfer of Development Rights.

ment Rights, and the creation of a County Development Rights Bank. The overall recommendations for each of these elements are as follows:

State Farmland Preservation Program Recommendations

State supported farmland districts and easement purchases are recommended for use in all Agricultural Preservation Study Areas if the farm parcel meets the criteria established by both the State and the Montgomery County Agricultural Board and Committee. The State program is administered by the Maryland Agricultural Land Preservation Foundation of the Maryland Department of Agriculture. The Foundation is an 11 member body appointed by the Governor, 2 are heads of State departments.

The program is completely voluntary on the part of owners of eligible farmland and involves the establishment of Agricultural Preservation Districts in which the landowner agrees not to develop the land for at least a period of five years. In exchange, normal agricultural activities (i.e., noise, odor, night operations, machinery operation, etc.) become protected activities in the District and, in Districts involving more than one property, landowners can assure self-protection from the encroachment of other land uses. For many landowners, a District which provides agricultural land use protection in addition to easement sale eligibility, is an attractive option.

Once a farm has been accepted into a District, the owner is immediately eligible, but not obligated, to sell a development right easement to the Foundation. To sell an easement is to sell only one of the many rights the property owner enjoys, the right to develop the land. When an easement is sold, the owner continues to own the farm or sell it, but the owner and his heirs, or the new buyer, can be assured that the farm will remain undeveloped.

The sale of an easement results in exchanging a portion of equity in land for cash and easement sale eligibility, or even a gift of the easement to the State can be used effectively in estate planning through providing a means of equitably dividing an estate while saving the family farm.

Rural Clustering Recommendations

Rural clustering, is recommended in designated Rural Open Space Areas via the Rural Cluster Zone (RC); these are areas where subdivision activity has already eroded parts of the critical mass of farmland. Rural clustering retains open space by allowing residences to be grouped on a portion of the site and fosters a more cost-effective development pattern than conventional residential development. Overall density as established by the Rural Zone, would not be changed; it would remain at one dwelling unit per 5 acres with a cluster option for 1 acre minimum lot sizes (40,000 square feet). For example, if the base zone is one dwelling unit per 5 acres and the tract is 200 acres in size, the number of permitted dwellings is 40 units. The cluster option would allow these 40 units to be grouped on lots as small as 1 acre on approximately 40 percent of the parcel or 80 acres. The remainder of the tract (approximately 60 percent or 120 acres) could be preserved as open space or used for agricultural uses. Thus, the overall density, 1 dwelling unit per 5 acres, would not change. These areas can be publically watered and sewered if service can be logically and economically extended or the area can be tied into existing transmission systems.

By employing this technique, development can be confined to a smaller portion of a

site, thereby preserving the remaining land for agriculture or open space. The opportunity for continued farming operations is lost as productive farmland is carved piecemeal into individual residential lots. By grouping homes and requiring that a percentage of contiguous land be preserved from development, the opportunity remains for continued farming via a leaseback approach or, at the minimum, for open space. The location of the proposed Rural Open Space Areas is illustrated on the Proposed Land Use and Zoning Map.

Transfer of Development Rights Recommendations

For those areas designated as the Agricultural Reserve, the Rural Density Transfer Zone (RDT) is recommended. These areas contain a critical mass of productive farmland worthy of protection, as well as other non-farmland uses which serve to support and define the critical mass. The location of the proposed Agricultural Reserve is illustrated on the Proposed Land Use and Zoning Map.

A Transfer of Development Rights (TDR) program[37] should be implemented to help preserve farmland and farming in the Agricultural Reserve. The zoning technique to implement a TDR program is the Rural Density Transfer Zone (RDT). TDR is like cluster zoning in that development is shifted from the Agricultural Reserve to another area in order to preserve farmland. The basic difference is that TDR sending and receiving areas are not contiguous as in most cluster zoning situations and are not necessarily in the same ownership. By clustering residential uses away from farmland, TDR preserves a critical and irreplaceable natural resource while still allowing for needed housing.

There are two basic steps necessary to use TDR: 1) establishment of a density transfer "sending area" in which development rights are created and can be purchased, and 2) designation of density transfer "receiving areas" where the land and public services are capable of absorbing additional density. This Plan creates an obligation to examine all newly proposed master plans and all substantial amendments to existing master plans to identify suitable locations for receiving areas with the capacity to implement this Plan. The specific density bonuses, as defined in the receiving areas, should adhere to the following guidelines:

a. The base or minimum density recommended by the master plan for a receiving area would not be below the minimum that would be reasonable from a planning prespective.

b. The optional density through transferable development rights recommended for a receiving area in a new master plan shall not exceed the ability of the planned public facilities to serve the area or the ability of the land and the environment to accommodate the optional density, including MPDU's; and the optional density and related land uses shall be compatible with the density and uses planned for the surrounding areas.

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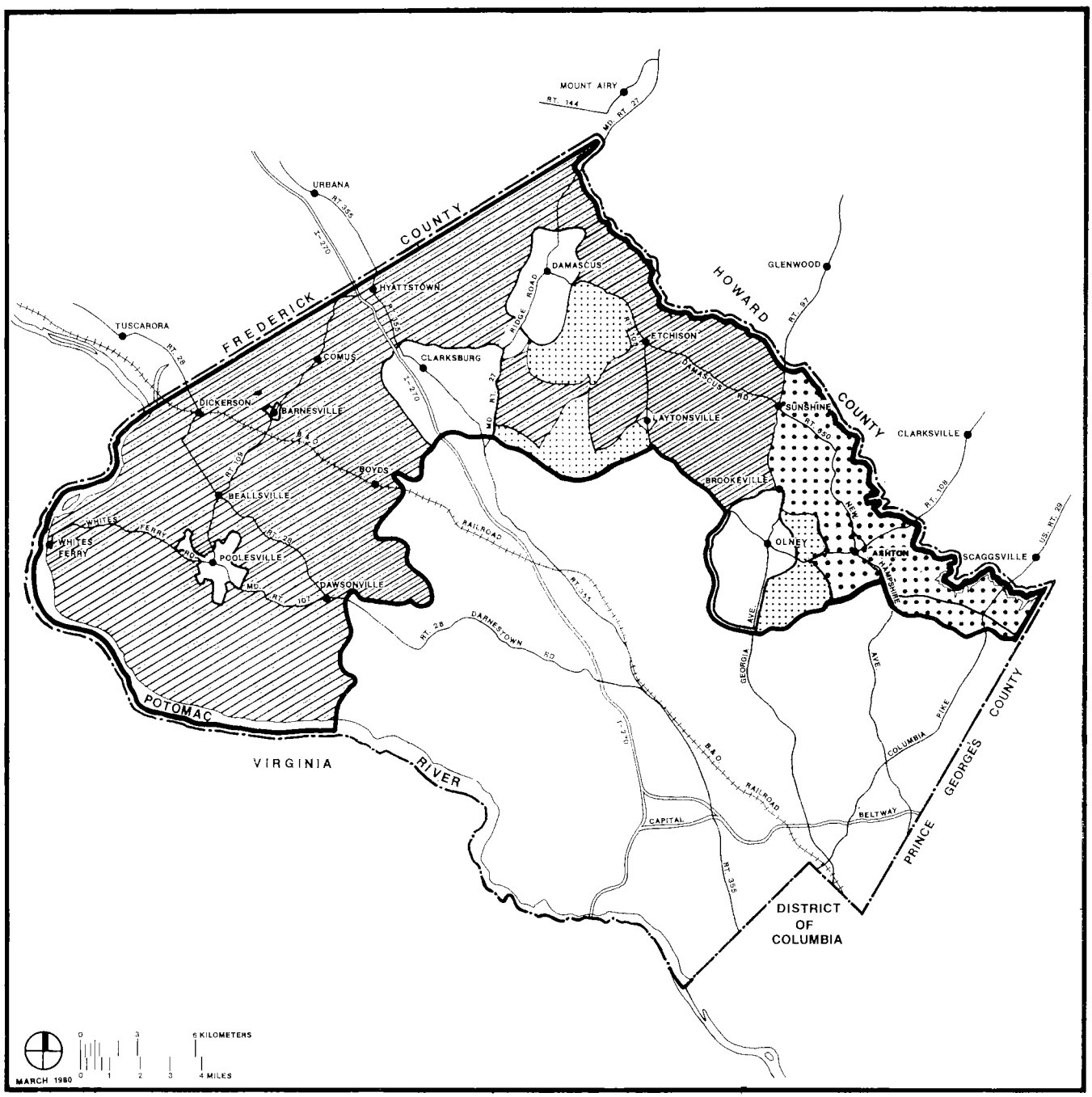
37 This concept is a private market approach of the same objective as the 1977 State law, entitled "Maryland Agricultural Land Preservation Foundation" which allows the state to purchase development rights from a farmland owner.

PROPOSED RURAL AREA LAND USE AND ZONING

Legend:

- Montgomery County Boundary
- Study Area Boundary
- Population Centers
- Agricultural Reserve (Rural Density Transfer Zone)
- Rural Open Space (Rural Cluster Zone)
- Residential (RE-2)



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

c. In general, property proposed in a new plan for downzoning from its existing zoning should not be designated as a receiving areas.

d. The Transfer of Development Rights option generally should not be exercised to increase density derived from the Planned Development option.

Relationship of the Sending and Receiving Areas to the TDR Program

As noted previously, the TDR program would apply only to an area specifically identified for inclusion in the Agricultural Reserve area. The areas identified for inclusion in the Agricultural Reserve, are appropriate as sending areas since they demonstrate a long history of agricultural use and are interrelated to one another forming a critical mass of farmland. The development density, at one dwelling unit per 25 acres, is appropriate and consistent with studies in Montgomery County and other locations in the United States which demonstrate that a 25-acre parcel and smaller farm parcels, if managed properly, are economically viable.[38] The development density certainly helps to preserve the farmland, while the equity aspect of the TDR program encourages farming.

The TDR program is an optional, voluntary program; a landowner can still develop under the Rural Density Transfer Zone (RDT) if he so chooses. The base density of this zone is one dwelling unit per 25 acres. However, the sender bases the number of development rights to be sent on the density currently permitted under the Rural Zone, one dwelling unit per 5 acres.

The development value of the farm is not being "wiped out" by the proposed TDR program with no compensation to the owners. The TDR program, allows farmland owners to sell their development rights and still retain the title to their land. The sale of development rights can help to finance capital improvements needed on the farm without carving small residential lots from the farm. This approach, unlike traditional zoning techniques, offers farmland owners an economic incentive to resist development pressure by allowing for the sale of development rights, thereby helping to preserve the farming activity as well as the land itself.

Receiving areas are those areas where development rights are transferred to increase residential density. A developer must purchase development rights from a farmer in the Agricultural Reserve area, on the basis that one development right equals 5 acres of farmland. Remember that the additional units allowed in a receiving zone are being transferred from the Agricultural Reserve. They are units which could be built under the provisions of the Rural Zone at one dwelling per 5 acres. The TDR program simply shifts them from the Agricultural Reserve to designated receiving areas.

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38 Rene Johnson, white paper report entitled, "Small Farm Economics, Office of Economic Development, March 1980 and "Small Farm Costs and Returns," Purdue University, Department of Horticulture, Agricultural Experiment Station, Bulletins 223 and 232, West Lafayette, Indiana, 1978.

These receiving areas, however, have not been identified in this Plan. A detailed study of the receiving areas is needed to ensure that appropriate base and maximum (bonus) densities are assigned to minimize any adverse community impact. Not every area will be an appropriate TDR receiving area. As master plans are developed, or revised, opportunities to create receiving areas should be examined. It is recognized that identification of receiving areas is a key element of the TDR concept and essential for the degree of public confidence necessary to make the concept work. It is the Council's objective to accomplish the necessary studies and master plan amendments to provide for a reasonable balance of sending and receiving areas within a two-year time frame. Further, the Council expects the Planning Board to report within 6 months following approval of the Agricultural Preservation Master Plan areas suitable for establishment of additional receiving areas. The proposed County Development Rights Fund could play an important role in development right purchase prior to the opening of appropriate receiving areas.

The location, size and development potential of the receiving areas are important elements of the TDR program. Montgomery County is fortunate in that we have a relatively wide variety of possible receiving areas. The purchase of development rights must be very attractive to developers. If receiving zones are well located from a marketing standpoint, and the density bonuses are sufficient to justify the purchase of development rights, the TDR concept will work.

To emphasize again, the TDR concept shifts the potential for dwelling units from an important natural resource in the Agricultural Reserve to land more suited for development, the receiving areas. The receiving areas will be identified in adopted and approved master plans and will be consistent with environmental, transportation, housing, and population guidelines of those master plans.

An example of an operational TDR program is as follows:

Sending Area

Farmer A owns 600 acres.

1. Parcel must be in the Agricultural Reserve.

2. Farmer A, owning 600 acres, his development rights are calculated at one unit per 5 acres, therefore Farmer A controls 120 development rights. $\frac{600}{5} = 120$ development rights.

3. Farmer A wishes to develop some lots on the farm; the Rural Density Transfer Zone permits Farmer A to convert 20% of the development rights into building lots (each lot having a minimum of 40,000 sq. ft., approximately 1 acre) on the farm.

   - 120 development rights x 20% = 24 lots which may be subdivided from the 600 acre farm.
   - 120 development rights x 80% = 96 development rights that are eligible for transfer.

4. After development rights are transferred to a receiving area, a restrictive easement on the property is filed among the County's land records limiting the development potential of the property to the number of rights retained. The restrictive easement is "owned" or controlled by the government. In this way, only action by the Council at some future time could release the easement. But even then, no more development could occur unless the parcel was also rezoned. However, if this occurs, the development potential of the parcel would be reduced by the number of development rights already sold. Once the development rights are sold, they may not be restored.

Receiving Area

Developer B owns 80 acres.

1. A receiving area and TDR density bonus must be designated in an approved and adopted master plan.

2. Developer B would like to acquire 120 development rights. He approaches Farmer A and buys his 96 development rights and approaches another farmer to purchase the additional 24 development rights that he needs. Farmer A now has no development rights left for future sale. An easement on Farmer A's property documents the sale of the 96 development rights.

3. Developer B owns 80 acres, zoned RE-2 (1 unit/2 acres). With the base density he has the right to build 40 units $\frac{80}{2}$ = 40 units. With TDR, the land may increase in density to 2 units/acre 80 x 2 = 160 units. To qualify for the higher density (120 units more than the base RE-2 zoning allows), Developer B must purchase 120 development rights.

4. A preliminary subdivision plan will be approved if Developer B acquires at least two-thirds of the units as a result of the density bonus. He is not required to purchase 100 percent of the allowable density bonus:

   2/3 x 120 units = 80 units, minimum TDR purchase
   40 units, base zoning
   120 units, minimum number of units.

In this example, Developer B wants to purchase 100 percent of the allowable density bonus. Developer B could utilize the full 120 development rights purchased from the farmers, plus the 40

units permitted under the base zoning. This results in the 160 units which are the maximum permitted as a result of the TDR density bonus.

Making the TDR program Work

Two key elements are needed for the TDR recommendation to work: 1) the identification of receiving areas in area master plans; and 2) the calculation of the farmland that is to be preserved. The County Development Rights Fund or Bank is the subject of a report to accompany this Functional Plan. The receiving areas will be identified subsequent to the approval and adoption of this Plan. The specific amount of uncommited farmland to be preserved can be defined within this Plan. In addition, the preservation program could be assisted by a County Development Rights Fund or Bank for an interim period. Due to the fact that receiving areas will be identified through individual master plans, it may be desirable to create a fund or bank to ensure the existence of an interim market for TDR's if a reasonable number of receiving areas are not available soon after the adoption of the sectional map amendment. The legislation to create a County Development Rights Fund or Bank should accompany the sectional map amendment for this preservation plan.

Excluding the Olney Planning Area, there are approximately 73,000 acres of uncommitted land in the Agricultural Reserve[39] to which development rights are applied, that is, land which is undeveloped, not in public ownership, and not in a municipality. As shown on Table 1, there are approximately 15,000 development rights generated by these 73,000 uncommitted acres which are available for transfer from the Agricultural Reserve to the receiving areas.

This many rights will probably never be fully utilized in the receiving areas since some farmland owners will decide not to sell all of their rights, others may choose to donate their land to an organization like the Maryland State Environmental Trust (see Appendix C for a description of the Trust), others will develop their farms at the base RDT density of one dwelling unit per 25 acres, some farms will be acquired for public uses, while others will sell their development rights to the State.

Although there are a maximum 15,000 dwelling units to transfer from the Agricultural Reserve, not everyone will choose to participate in the program for reasons noted previously. We can assume that 9,000 dwelling units is a more realistic number. The areas already within the sewer envelope could easily absorb this amount.

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39 A TDR program in the Olney Planning Area is already an element within an adopted and approved master plan. All calculations exclude the program already developed for Olney since it is designed to operate only within a single planning area.

TABLE 1

ESTIMATED NUMBER OF DEVELOPMENT RIGHTS
IN THE AGRICULTURAL RESERVE*

Uncommitted Acres	Transfer Density	Development Rights to Send
(a)	(b)	(a ÷ b)
73,000 acres	1 D.U./5 Acres	15,000 (Rounded)

*Although there are 110,000 total gross acres in the Agricultural Reserve, only 73,000 acres remain uncommitted. The Clarksburg and Damascus Planning Areas are excluded since they are the subjects of upcoming area master plans; the Olney Planning Area is excluded since it has an operational farmland preservation plan within its boundaries; all publically owned land and municipalities, are also deducted from the total gross 110,000 acres, thereby leaving a residual of 73,000 acres uncommitted.

County Development Rights Fund Recommendations

As envisioned by this Plan, the County Development Fund could commit all, or part of the money available each year to: (a) guarantee loans through private banking institutions, (b) make loans and/or, (c) purchase TDR's funded by general obligation bonds at a level which permits acquisition of development rights at the historic rate of farm sales during the last decade.

Once an adequate market for TDRs has been established by adoption of receiving areas, the Fund could liquidate its holdings in TDRs and return the proceeds to the County treasury. This liquidation process should be orderly and gradual to prevent "flooding the market" with TDRs.

The County Development Rights Fund would be operated by the County government. The bank would be funded by general obligation bonds. It would be funded at a level which permits acquisition of development rights at the historic level of farm sale conversion. On the average 1,000 acres of farmland are lost each year in the Agricultural Reserve.[40] At a cost, in 1980, to purchase development rights less its agricultural value it costs $1,500-$2,000 per acre. Based on these general figures, a Montgomery County Planning Board staff report focusing on program costs, funding sources, and funding levels will accompany this Plan.

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40 Approximately 100 building permits are issued each year in the Agricultural Reserve. The average parcel size is 7-10 acres, which results in 1,000 acres lost to residential development yearly in the Agricultural Reserve.

This proposal would insure that the land from which the development rights are sold can be used or sold as farmland only, without development rights. This will permit farmland to be bought relatively reasonably, thereby helping the young farmer establish a land base or an older farmer expand his production capability. The Fund is a critical element to the success of the proposed farmland preservation program.

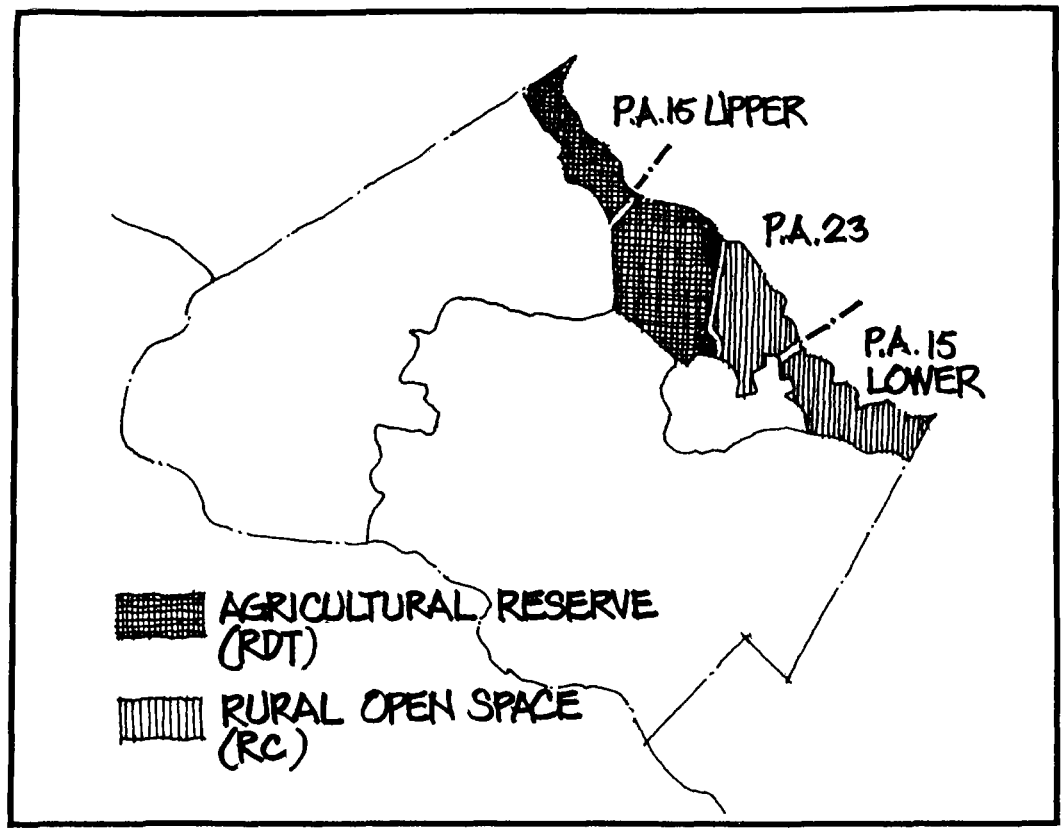
SPECIFIC AGRICULTURAL PRESERVATION STUDY AREA RECOMMENDATIONS

This chapter has outlined a program that is designed to preserve farmland. The following section specifically highlights land use and zoning recommendations for the individual planning areas within the Agricultural Preservation Study Area excluding the municipalities and identified growth areas. To facilitate understanding, the Study Area has been broken down into three sectors, since the area is so large and the issues vary from planning area to planning area.

Eastern Sector includes:
- Patuxent Convervation Area (P.A. 15)
- Olney Planning Area (P.A. 23)
- Sandy Spring/Ashton Special Study Area

Central Sector includes:
- Bennett and Little Bennett Watershed (P.A. 10)
- Damascus and Vicinity (P.A. 11)
- Goshen Woodfield, Cedar Grove and Vicinity (P.A. 14)
- Clarksburg and Vicinity)P.A. 13)

Western Sector includes:
- Little Monococy Basin, Dickerson, Barnesville (P.A. 12)
- Lower Seneca Basin (P.A. 18)
- Poolesville and Vicinity (P. A. 17)
- Martinsburg and Vicinity (P.A. 16)



EASTERN SECTOR RECOMMENDATIONS

TOTAL ACRES	47,000 Acres
ACRES CURRENTLY FARMED	21,900 Acres
PUBLIC LANDS	2,600 Acres

	Existing Zoning	Proposed Zoning
PATUXENT CONSERVATION AREA (P.A. 15)[41]		
UPPER	RURAL ZONE	RDT
LOWER	RURAL ZONE	RC
OLNEY PLANNING AREA (P.A. 23)	Approve Olney Master Plan recommendation for RDT and RC.	

[41] "P.A." is an abbreviation of Planning Area.

EASTERN SECTOR RECOMMENDATIONS

- Approve Olney Master Plan (P.A. 23) recommendations for farmland and rural open space preservation.

- Approve Sandy Spring/Ashton Special Study Plan recommendations for rural open space preservation.

- Rezone the northern (upper) part of the Patuxent Watershed Conservation Area (P.A. 15) from the Rural Zone to the Rural Density Transfer Zone (RDT).

- Rezone the southern (lower) part of the Patuxent Watershed Conservation Area (P.A. 15) from the Rural Zone to the Rural Cluster Zone (RC) when appropriate. Application of these zones should be in conformance with the Eastern Montgomery County Master Plan and the comprehensive rezoning as a result of that plan.

EASTERN SECTOR JUSTIFICATION

This 47,000 acre sector contains a wide range of land uses, some of which are not compatible with the intent of a farmland preservation program. As a result, the thrust of the farmland preservation recommendations focus on the northern part of the Olney Planning Area (P.A. 23) and the upper Patuxent Conservation Area (P.A. 15).

Designating the upper Patuxent Conservation Area and the northern portion of Olney for inclusion in the Agricultural Reserve is appropriate and consistent with agricultural preservation land use policies as expressed in this Plan. The land area in northern Olney recommended for inclusion in the Agricultural Reserve has already been the subject of an adopted and approved master plan in which this concept was fully endorsed by the Montgomery County Council. Immediately adjacent to the Olney area is the upper Patuxent Conservation Area which also includes some of the most productive soils in Montgomery County which, in turn, support a viable and cohesive agricultural community which is very much an extension of the Olney critical mass of agricultural land.

The upper Patuxent Conservation Area includes approximately 6,100 acres, approximately 80 percent of which are receiving farmland assessment. Little subdivision activity has occurred to seriously eroded this agricultural area. Only two preliminary plans have been filed and approved since 1978 resulting in 36 proposed lots, none of which have been constructed. A land-use recommendation of this type is not only appropriate for the area but it serves to strengthen the agricultural community within Olney and Damascus and supports the preservation efforts of Howard and Frederick Counties.[42] The upper Patuxent Conservation Area abuts agriculturally zoned land in

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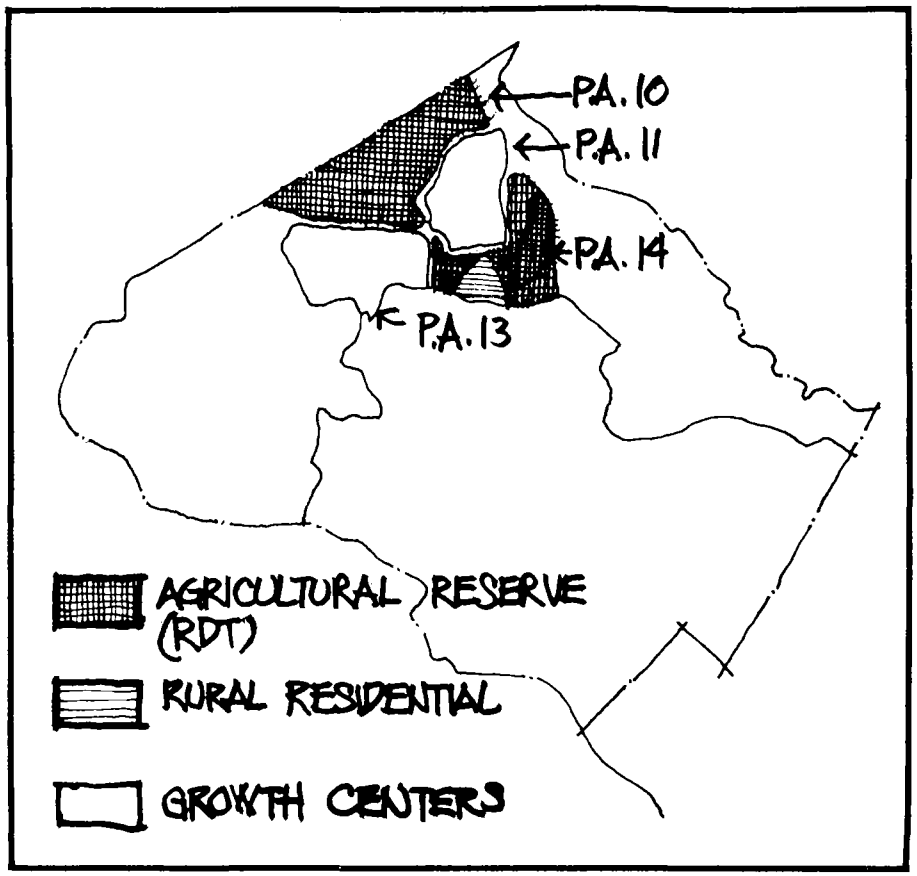
[42] The preservation efforts of our neighbors is expressed and justified in two planning documents - "The Work Force for the Preservation of Howard County Farmland Report 1976" and, "Agricultural Preservation," Frederick County, Maryland 1977.

Frederick County and is approximately 2 miles from Howard County's cluster of agricultural districts.

The lower portion of the Patuxent Conservation Area (P.A. 15) south of the Olney Planning Area has been seriously eroded by subdivision activity and cannot qualify for inclusion in the Agricultural Reserve; the average farm parcel is 50 acres and approximately 40 farm parcels remain out of the area's 7,468 acres. It already has been recommended for open space preservation in the Staff Draft of the Eastern Montgomery County Master Plan and abuts the rural open space area recommended in the Olney and Sandy Spring/Ashton Master Plans. As a result, this Plan recommends: a) to insure compatibility with the area master plans to the northwest and with the Eastern Montgomery County Master Plan; and b) to reflect the land-use pattern already established within the area. Implementation of the rural open space recommendation should be carried out by the Rural Cluster Zone (RC), when appropriate as determined by the Eastern Montgomery County Master Plan.



CENTRAL SECTOR RECOMMENDATIONS

TOTAL ACRES	45,000 Acres
ACRES CURRENTLY FARMED	35,700 Acres
PUBLIC LANDS	10,300 Acres

	Existing Zoning	Proposed Zoning
BENNETT AND LITTLE BENNETT WATERSHED (P.A. 10)	RURAL ZONE	RDT
DAMASCUS AND VICINITY (P.A. 11)	Subject of Master Plan Update	
GOSHEN WOODFIELD, CEDAR GROVE & VICINITY (P.A. 14)	RE-2	RE-2 & RDT
CLARKSBURG & VICINITY (P.A. 13)	Subject of Master Plan Update	

CENTRAL SECTOR RECOMMENDATIONS

- Rezone 6,321 acres of Goshen Woodfield, Cedar Grove & Vicinity from RE-2 to the Rural Density Transfer Zone (RDT).

- Confirm 7,689 acres of RE-2 zoning in the Goshen Woodfield, Cedar Grove and Vicinity (P.A. 14).

- Continue preparation of the Damascus and Vicinity Master Plan and exclude the planning area from the scope of this Plan.

- Prepare a new master plan for the Clarksburg Planning Area that re-evaluates the General Plan's recommendation for a Corridor City, and examines Clarksburg's potential for agricultural preservation.

- Rezone the Bennett and Little Bennett Watershed Area (P.A. 10) from the Rural Zone to the Rural Density Transfer Zone (RDT).

CENTRAL SECTOR JUSTIFICATION

This 36,000 acre sector is the pivotal point in Montgomery County's agricultural and rural open space preservation program. Within the sector, one corridor and one satellite city were designated by the General Plan; the I-270 regional transportation corridor cuts a path through the sector; Goshen/Woodfield Planning Area, once a pristine agricultural area is being eroded in two areas by subdivision activity; pressure from Germantown and Gaithersburg continues to move northward toward the sector; and pressure to develop continues in the Little Bennett area which offers panoramic views of Sugarloaf Mountain and farm valleys that developers find difficult to resist.

The Bennett and Little Bennett Watershed (P.A. 10) is recommended for inclusion in the Agricultural Reserve via the Rural Density Transfer Zone (RDT), since the critical mass of farmland is still very much intact and the land is productive. Some of Montgomery County's oldest farm families still operate very successful agricultural businesses here. In addition, farm acreage has already been given, in perpetuity, to the Maryland State Environmental Trust. Little significant subdivision activity has occurred in this area since 1978, well over 90 percent of the area is receiving farmland assessment. Large farm parcels still prevail which encircle the 3,500 acres of Little Bennett Regional Park. In addition, the area abuts the Frederick County's agricultural and conservation zones and a recommendation for preservation would continue to strengthen the regional agricultural community. Pressure to develop this area is expected to increase because of its natural beauty and as employment opportunities move northward along the I-270 corridor. An aggressive preservation program should be focused on this area.

Although 76 percent of the Goshen-Woodfield Planning Area is still receiving farmland assessment, the balance of the area has already been subdivided, thereby "salt and peppering" three broad areas with rural subdivisions, an area immediately south of Damascus, one north of the Gaithersburg Planning Area, and one in the center of the

area as shown on the land use and zoning map between the Great Seneca and Woodfield Road. These three areas, therefore, should be retained in RE-2 zoning. In addition to these three broad areas, a small area currently zoned R-200 which includes both the Tregoning Farm and only a portion of the Watkins Amalgamated property to the immediate south will be considered as part of the Clarksburg Master Plan area. Since 1978 alone, preliminary subdivision plans affecting approximately 488 acres, have been submitted. Within that same timeframe 50 lots were approved covering an additional 164 acres, and a rezoning request that would create an additional 195 lots on 126 acres has been filed.

The preservation recommendations focus on two areas of Goshen-Woodfield.[43] The first of these is the area between Route 27 and the Great Seneca Stream Valley Park and Goshen Branch. Containing a few scattered houses and major farming operations, this area should be placed in the Rural Density Transfer Zone. The second area, between Woodfield Road, Route 108, and Great Seneca Park Extended has similar conditions. It contains several substantial farms and abuts the Olney Agricultural Preservation area. It is also recommended for RDT zoning.

The Rural Zone Sectional Map Amendment, in 1973, reclassified the entire Goshen-Woodfield area from the R-R (R-200) classification to the R-A (RE-2, Rural Estate) classification, since the General Plan indicated that low density, (approximately 2 dwelling units/acre) for this area. The staff report at that time did not involve the preparation of a detailed study, it was an effort to implement the general recommendations of the General Plan via the sectional map amendment process. The report indicated that zoning with a residential density should be "at least as low as RE-2," this indicates a flexibility which this Plan is now responding to, given the overall intent of this Plan, the historic agricultural character of the area itself, and the fact that since 1973 agricultural preservation has become a vital public purpose element that ultimately effects energy supplies, compact and efficient form of development, and ultimately the cost of a basketful of groceries.

This Plan will not make specific planning recommendations for the two growth areas delineated in the General Plan, the Damascus Planning Area (P.A. 11) or the Clarksburg and Vicinity Planning Area (P.A. 13) since they are or soon will be the subject of individual area master plans.

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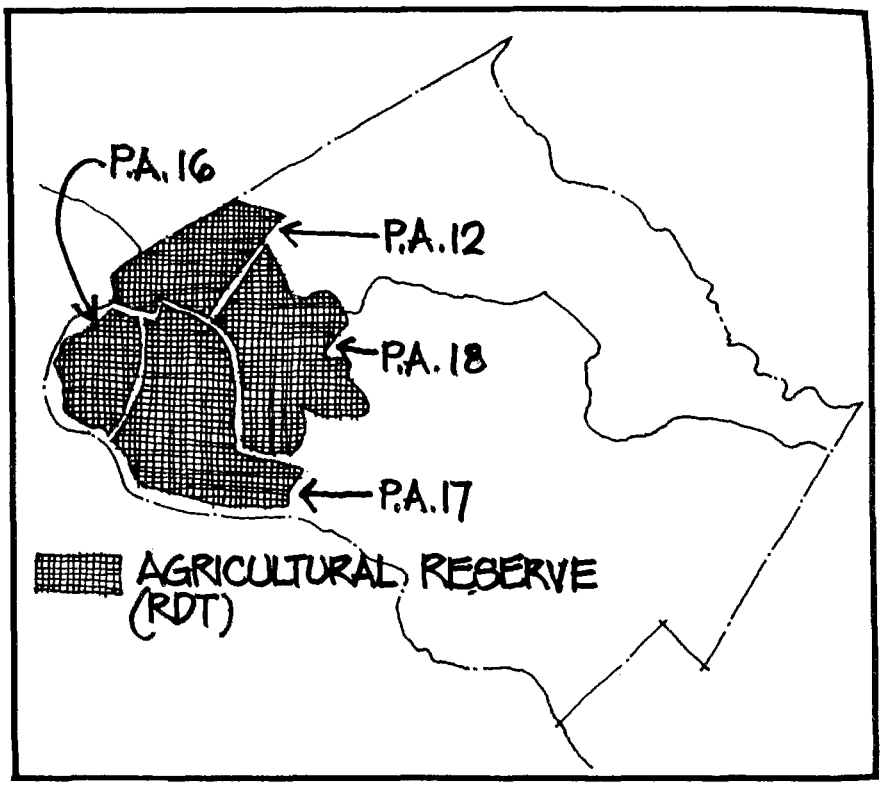
43 There are a total of 14,185 acres in P.A. 14.



WESTERN SECTOR RECOMMENDATIONS

TOTAL ACRES	71,000 Acres
ACRES CURRENTLY FARMED	47,400 Acres
PUBLIC LAND	6,600 Acres

	Existing Zoning	Proposed Zoning
LITTLE MONOCACY BASIN, DICKERSON, BARNESVILLE (P.A. 12)	RURAL ZONE	RDT
LOWER SENECA BASIN (P.A. 18)	RURAL ZONE	RDT
POOLESVILLE & VICINITY (P.A. 17)	RURAL ZONE	RDT
MARTINSBURG & VICINITY (P.A. 16)	RURAL ZONE	RDT

WESTERN SECTOR RECOMMENDATIONS

Rezone the entire area from the Rural Zone to the Rural Density Transfer Zone (RDT).

WESTERN SECTOR JUSTIFICATION

The dominant use of the land in this 68,000 acre sector has for years been agriculture. Although agricultural pursuits in Montgomery County have shrunk greatly, this western part of the County remains a relatively undisturbed agricultural region. This region has also experienced extensive easement acquisition activity by the Environmental Trust.

The predominance of rural and agricultural uses continues for some distance throughout the entire sector, except for the Town of Poolesville. The first appearance of spotty suburban residential development occurs down-County along Route 28 and River Road; homes have been built in recent years along and near these highways, as extensions of earlier suburban development in Rockville and Potomac. The Seneca Creek and Seneca State Park are a natural divide between the critical mass of farms in western Montgomery County and suburban development close to the County's water and sewer envelope.

The one important fact concerning agriculture in this area is that, whatever is currently produced and whatever the ownership pattern now is, the land itself still exists; very little of it has been taken over by non-farm residential uses and thus lost forever as farmland. Although the soil is not considered the very best for crop purposes, compared with other parts of the County, it has supported a great amount of farming over the years, proving that non-prime soils can be productive and valuable especially when accompanied by good land management techniques and new methods of land tillage. The existence of this large undeveloped and agriculturally workable area gives support to the idea that its continued use as agriculture is not an unattainable or unreasonable goal.

The only area master plan for this sector, the Poolesville Vicinity Master Plan, has recommended that approximately 19,500 acres of farmland be preserved in the Poolesville Vicinity Planning Area - utilizing an appropriate preservation technique as recommended in this functional plan. Designating Poolesville Vicinity[44] for the Rural Density Transfer Zone (RDT) and inclusion in the Agricultural Reserve is appropriate and consistant with the land use policies expressed in this Plan, and with the intent of the Rural Zone Sectional Map Amendment in 1973, which applied the Rural Zone to

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[44] Exclusive of the Town of Poolesville and the 30 acre Holleman property which is located at the edge of the Lower Seneca Planning Area (P.A. 18) adjacent to the South Germantown Park. This 30 acre property is currently zoned rural and should remain so.

approximately 110,000 acres of land in the County. The Rural Zone Sectional Map Amendment was intended "to serve multiple agricultural and conservation purposes, which would tend to reinforce each other when combined to provide protection for permanent agricultural and conservation areas. . ." However, as detailed in Chapter III, the Rural Zone has not protected agricultural and conservation (open space) areas. As a result, the Rural Density Transfer Zone (RDT) is recommended for use in this sector.

This preservation recommendation will also strengthen the agricultural preservation program in Frederick County, since their Agricultural Zone abuts this sector as well as the rural open space (secondary agricultural) areas recommended in the Darnestown area.

The following specific recommendations relate to all of the sectors:

- Confirm existing rural community and village zoning.
- Confirm existing commercial and industrial zoning in the Agricultural Reserve and Rural Open Space Areas, as shown on the fold out map included in this Plan.

This Chapter has outlined a preservation program that is designed to preserve farmland so that farming, as an industry, can survive in Montgomery County. Not only is it important to retain a "critical mass" of farmland in the Agricultural Reserve, but it is important to develop supportive County policies and programs that strengthen the industry itself. Included in Chapter VII, The Next Step, are specific recommendations that will help to strengthen agriculture in Montgomery County. The chapter will define the role and responsibilities of those most appropriate to implement the supportive recommendations.

SUMMARY OF LAND USE AND ZONING RECOMMENDATIONS

SECTOR	PLANNING AREA	EXISTING ZONING	PROPOSED LAND USE	PROPOSED ZONING
Eastern -	Patuxent Conservation P.A. 15			
	Upper	Rural Zone	Agric. Reserve	RDTZ
	Lower	Rural Zone	Rural Open Space	RCZ
	Olney P.A. 23	--	Agric. Reserve Rural Open Space Growth Center	
Central -	Bennett and Little Bennett P.A. 10	Rural Zone	Agric. Reserve	RDTZ
	Damascus P.A. 11		Subject of Revised Plan	Subject of Revised Plan
	Goshen/Woodfield Vicinity P.A. 14	RE-2	Rural Resid. Agric. Reserve	RE-2 RDTZ
	Clarksburg P.A. 13		Subject of Revised Plan	Subject of Revised Plan
Western -	Little Monocacy, Dickerson, Barnesville P.A. 12	Rural Zone	Agric. Reserve	RDTZ
	Lower Seneca P.A. 18	Rural Zone	Agric. Reserve	RDTZ
	Poolesville P.A. 17	Rural Zone	Agric. Reserve	RDTZ
	Martinsburg P.A. 16	Rural Zone	Agric. Reserve	RDTZ

Agricultural Reserve	=	110,000 Acres
Rural Open Space	=	26,000 Acres
Growth Centers and Areas to be Master Planned	=	27,000 Acres
Rural Study Area	=	163,000 Acres
Uncommitted Land Within Agricultural Reserve	=	73,000 Acres

CHAPTER VI: FARMLAND AND RURAL OPEN SPACE PUBLIC SERVICE GUIDELINES

In addition to the land use and zoning recommendations delineated in this Plan, there are public service guidelines that should be addressed so that the retention of farm land is supported by the instruments of public policy. A coordinated program of public service guidelines involving primarily water and sewer service and transportation facilities, designed to guide development, are highlighted in this chapter, as well as guidance in understanding the preservation program's effect on housing and rural communities.

WATER AND SEWERAGE GUIDELINES

Water and sewer service are two of the most significant public services that control the timing of development. The recommended guidelines are designed to permit little, if any, additional service within the Study Area with the exception of the growth areas--Damascus, Clarksburg, Olney, and Poolesville. The selective and limited expansion of public water and sewer service will support and help implement the preservation recommendations expressed in this Plan. Service to the Agricultural Preservation Study Area is shown on the Existing Public Resources Maps.

Recommended Water and Sewerage Guidelines

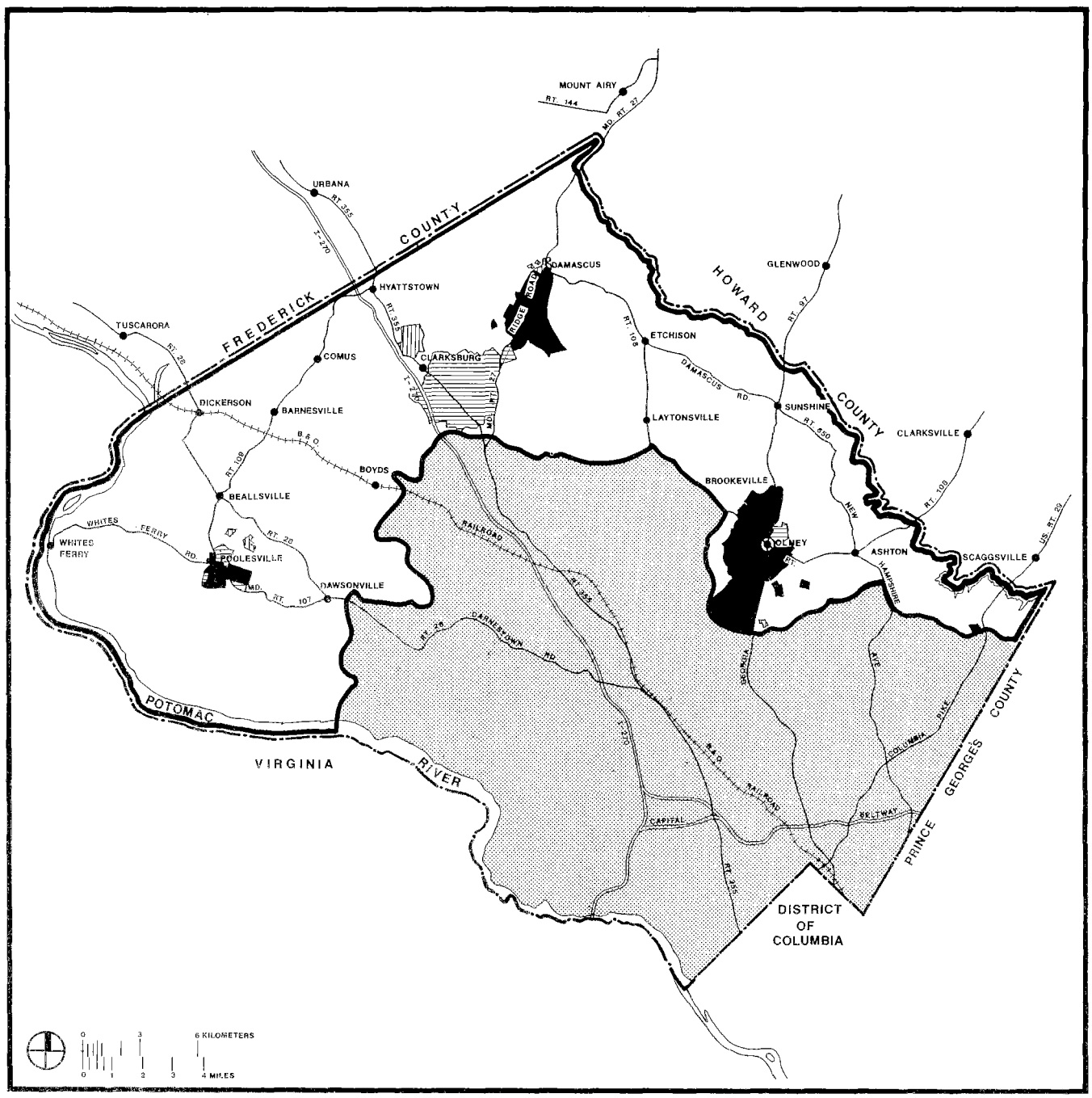
- Consistent with recommendations in the Fifth Annual Growth Policy Report, the entire Study Area (Policy Area I) is not recommended for public sewer service within the next 20 years, with the exception of Clarksburg.

- Deny public water and sewer service to areas designated for agricultural preservation that utilize the Rural Density Transfer Zone (RDT).

EXISTING PUBLIC RESOURCES SEWER SYSTEM

Legend:

- Montgomery County Boundary
- Study Area Boundary
- S-1&2 Service existing or imminent.
- S-3 Service provided within 2 years.
- S-5 Service provided within 7-10 years.
- S-6 No planned service in balance of study area.

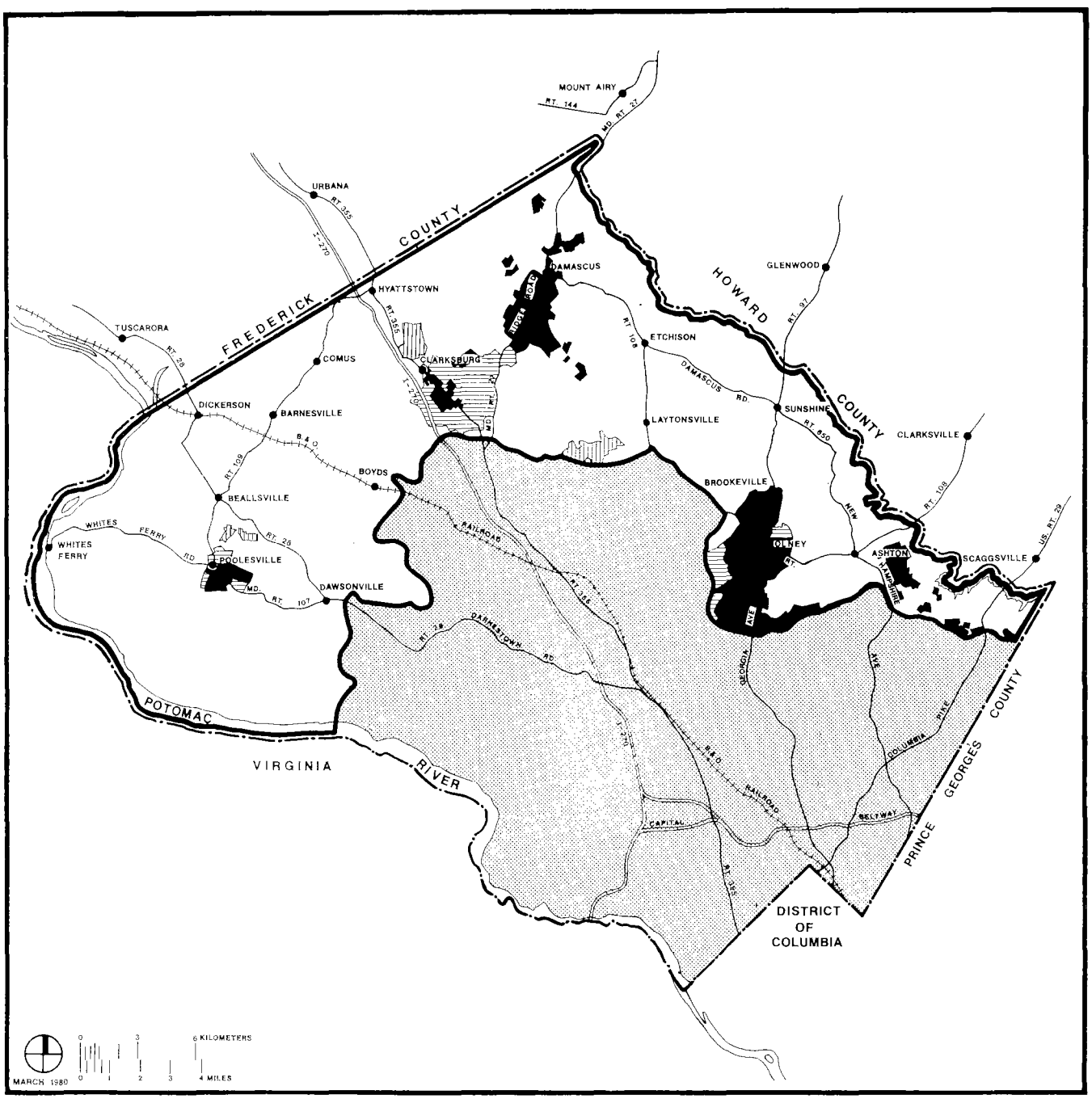


FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

EXISTING PUBLIC RESOURCES WATER SYSTEM

Legend:

- Montgomery County Boundary
- Study Area Boundary
- W-1 & 2 Service existing or imminent.
- W-3 Service provided within 2 years.
- W-5 Service provided within 7-10 years.
- W-6 No planned service in balance of study area.



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

- Endorse existing policy to relieve public health problems beyond the sewer envelope by permitting publicly sponsored individual or community system installation under controlled conditions.

- Continue investigation of alternative publicly sponsored individual and community systems for application in areas experiencing community-wide or scattered public health problems beyond the sewer envelope.

- Deny private use of alternative individual and community systems in all areas designated for the Rural Density Transfer Zone (RDT).

- Study the possible application of private alternative individual and community systems in rural open space areas.

- Develop water and sewer policies for the Damascus area that complement its critical location within the Agricultural Reserve as part of the Damascus Master Plan update process.

- Study those that rural communities and villages for those should be considered for publically sponsored alternative individual and community systems to help increase the amount of low and moderate cost housing and solve related health problems.

- Support the water and sewer recommendations expressed in the Olney Master Plan and Poolesville Vicinity Master Plan.

TRANSPORTATION GUIDELINES

The transportation guidelines are designed to avoid artificially stimulating the market for conversion of farmland to residential development. The system should provide facilities that meet, primarily, the safety and maintenance needs of an active agricultural community. To this end, transportation facilities should be limited so as to lessen the desireability of development particularly in the Agricultural Reserve and the areas recommended for Rural Open Space. The alignments of freeway, major, arterial roadways and scenic setbacks are illustrated on the Zoning and Highway Plan. At the time of development, the classification and alignment of primary roads will be determined.

Right-of-way requirements for roadways are generally based on the need to provide adequate width to accommodate typical ultimate paving cross sections plus abutting features such as sidewalks, drainage, and utilities. In most areas in the Agricultural Reserve and Rural Open Space, the ultimate paving cross section may never be required. However, the extra right-of-way should not be discarded because it can serve very important auxiliary needs.

If sufficient right-of-way is available as a result of dedication through the subdivision process, many highway safety projects can be accomplished without the cumbersome and expensive process of acquiring right-of-way. Safety projects which are particularly important on rural roadways, would include reduction of crest vertical

curves, straightening of horizontal curves, provision of shoulders and left turn storage lanes, drainage improvements and removal of roadside obstructions. Extra right-of-way is important when air quality and noise standards are in question. By having a wide right-of-way and minimum residential setbacks the noise and air pollution impacts will be minimized. The additional house separation from the roadway provides the secondary benefits of opportunities for scenic setbacks and landscaping.

In addition to the roadway network, a Master Plan of Bikeways for the County, approved and adopted in 1978, recommends an interconnected system of publicly financed bikeways to serve County-wide recreation and transportation needs. The plan provides the basis for identifying and reserving rights-of-way for future bikeways, using both roads and open space. The County-wide plan recommendations for the Agricultural Preservation Study Area are illustrated on the Trails System Map. Also illustrated are the Sugarloaf Regional Trails (SRT) system which represent bicycle touring routes throughout the upper part of the County.

Recommended Transportation Guidelines

- Allow roads to remain in their present condition for 15-20 years except for maintenance and safety projects.

  The current funding situations at both the State and County level results in a low probability of planned roadways being implemented in the Study Area within the near future. The 5th Annual Growth Policy Report identifies a set of State roadways upon which priority should be placed in light of limited financial resources to best serve forecasted growth; none of these roadways are in the Study Area.

- Support State and County roadway programs that facilitate development in the Germantown and I-270 corridor so that the corridor city, Clarksburg, can be opened in a timely and sequential fashion.

- Support development of the bikeway network expressed in the Master Plan of Bikeways.

- Support the Sugarloaf Regional Trails system in identification of the approved trail systems.

- Encourage use of Scenic Setback Regulations in area master plans. These regulations permit a setback greater than 50' from the front lot line to conserve the scenic value of a roadway if indicated in an adopted and approved master plan.

- Amend Master Plan of Highways in conformance with this Functional Master Plan.

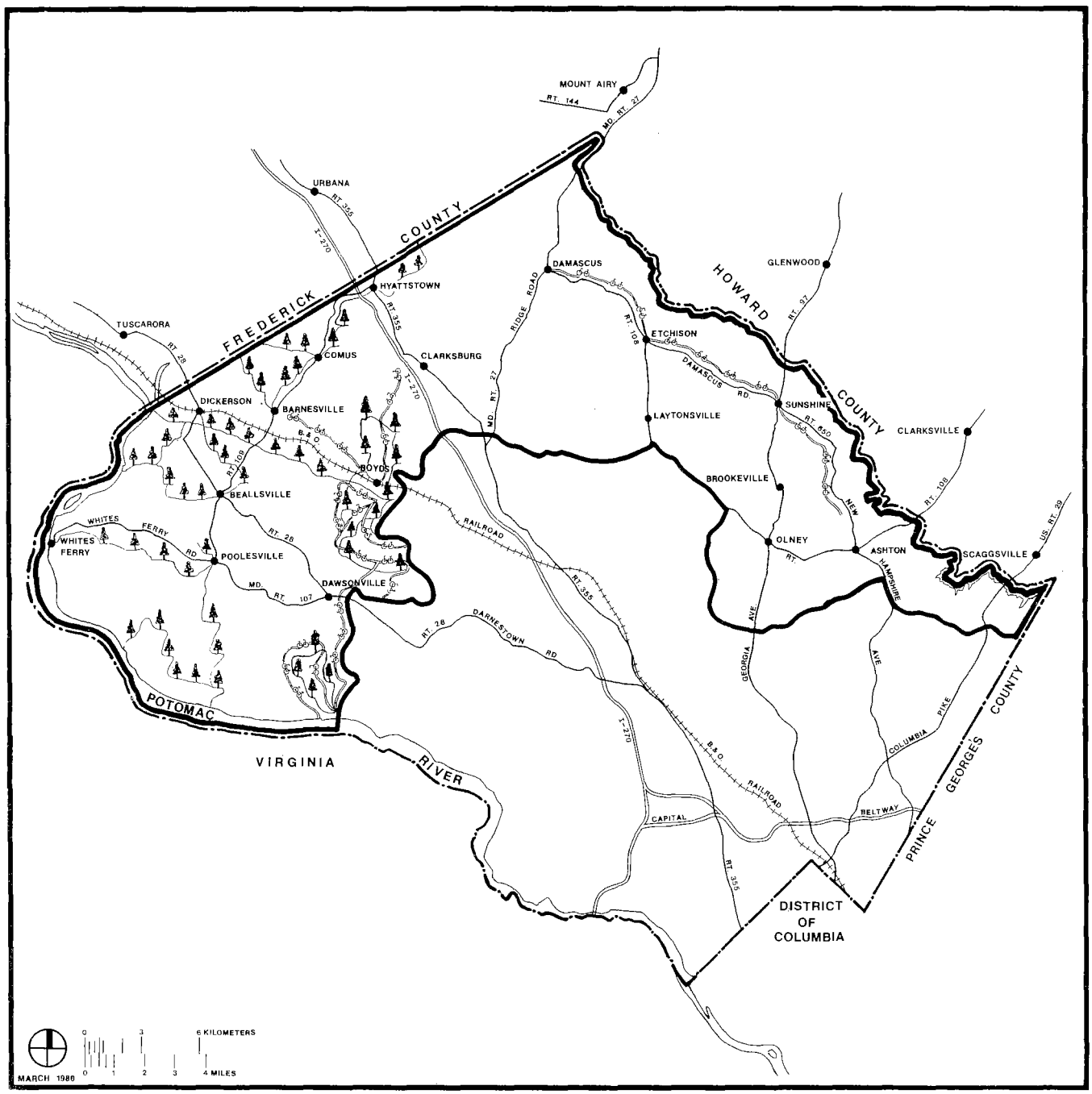
- Access impact of proposed major highways and arterials on existing rural settlements such as Hyattstown, Barnesville, Poolesville, etc.

TRAILS SYSTEM

Legend:

- Montgomery County Boundary
- Study Area Boundary
- Bikeways
- Sugarloaf Regional Trails Network

Whenever bikeways and trails parallel one another it indicates they follow the same route.



FUNCTIONAL MASTER PLAN FOR THE PRESERVATION OF AGRICULTURE AND RURAL OPEN SPACE

ENVIRONMENTAL GUIDELINES

The Agricultural Preservation Study Area is rich in natural resources; several streams and rivers flow through the area and 26 percent of the Study Area is still forested. Gently rolling hills and steeper slopes near river beds create an interesting landscape and provide sweeping vistas of rich farmland. It is important to protect this natural environment, in conjunction with farmland itself. This Plan is an appropriate vehicle to examine the relationship between farmland and open space preservation and environmental protection.

Water Resources

The effects of farmland on both quantity and quality of water are numerous and widely recognized. A large share of the urban flood problem results from a decrease in area-wide infiltration and retention resulting from paving, building development and drainage of swamps, with the resulting increase in stormwater runoff.

Urbanization, with its alteration of the natural contours and permeability of the earth also increases the irregularity of the surface water flow, lessening its reliability as a water supply source. The already erratic stream flows in this area have increased as development has proceeded. Peak flows on many streams have increased; on Northeast Branch of the Anacostia River near Colesville, for example, the average annual flow has increased from 5,400 cfs in 1963 to 7,200 cfs in 1974.[45] The coincident lowering of groundwater levels can also result. To deal with these problems, in engineering terms, is costly and may have adverse environmental consequences.

Farmland can ameliorate these water problems by slowing the rate of runoff and the speed of peak discharge, and by increasing the amount of infiltration. While farmland is not as effective at these operations as thickly forested land, it is still greatly superior to reasonably dense and extensively paved suburban areas, when proper land management techniques are applied.

The protection of groundwater supplies and large scale water supply impoundment depends almost entirely on land management techniques that permit recharge of such supplies and reduce the chances of pollution. For example, the land management program developed in conjunction with the proposed Little Seneca Lake project (an emergency water supply impoundment) provides many comprehensive and innovative solutions to water resource protection problems. This type of land management approach for the protection of drinking water supplies should be applied to other areas in the Agricultural Reserve and Rural Open Space areas.

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[45] "The effects of urbanization on streamflow and Sediment Transport in the Rock Creek and Anacostia River Basins is discussed in the U.S.G.S. Professional Paper #1003, and the Seneca Creek Watershed Plan prepared by the MCPB, October 1977.

Although regional groundwater conditions vary greatly, there are aquifers of sufficient productivity in the coastal plain province of neighboring Prince George's County to supplement regional water supplies. However, wells in the Piedmont Province of Montgomery County are generally not as productive, with typical yields in the range of 6-25 gallons per minute from non-artesian, groundwater sources. These wells currently serve many residents outside of the Ten-Year Water and Sewer envelope and are of sufficient productivity to satisfy local farming and residential needs. It is clear that groundwater will come to play an increasingly important role in the region's water resources picture. In light of this fact, it would seem prudent to assure preservation of aquifer recharge areas.[46]

The generalized location of these recharge areas in Montgomery County are based on studies by the U.S. Geological Survey. Farming is still the predominant land use above the locally significant recharge area in the Western county.

The recharge area on the eastern border of the County is now partially urbanized, though there is still significant farm and open space acreage in certain sections. The aquifer just to the east of this area is of regional significance and steps should be taken to preserve open land within the recharge area to assure continued recharge of this essential resource.

The second major impact which man has had on water resources concerns the quality of the water. When an area is urbanized the nutrient pollution may decrease somewhat as agricultural runoff lessens, but this pollution is replaced with gasoline and oil products in stormwater runoff, and more than equalled by increases in biological wastes from sewer overflows and treatment plant inadequacies. Water quality records for Seneca Creek and Cabin John Creek, for example, continue to indicate a relatively high level of total and fecal coliform levels which suggests bacterial contamination.[47]

The increase in runoff caused by urbanization, in turn, increases streambank erosion rates, aggravating the turbidity levels of area streams. The variation in rate of flow and the amount of sediment yield is greater for suburban streams than for

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46 The Federal Environmental Protection Agency is currently studying a request to designate portions of the Boyds, Clarksburg, Germantown, Comus, Hyattstown and Damascus areas as having a "sole source aquifer" as a part of the Safe Drinking Water Act. This request, made by citizens of the area, contends that the "sole source aquifer" designation will help to protect and preserve groundwater; the only source of drinking water in the upper County. If this area is designated by Environmental Protecting Agency, a finding will be required to insure non-degradation of drinking water for all federally funded projects.

47 Department of Environmental Protection, Water Quality of Streams in Montgomery County, Maryland, Montgomery County, January 1974 - December 1977.

predominantly rural agricultural streams. One study in Montgomery County found that the peak sediment yield was nearly ten times greater for the urbanized stream.[48]

Summarizing, the following points should be noted regarding the value of farmland for preservation of water resources:

(1) Farm areas maintain infiltration rates, thereby helping to preserve groundwater recharge areas.

(2) Farm areas that use approved land management practices should have less runoff in comparison to urban areas, thereby reducing flooding problems.

(3) The combination of (1) and (2) greatly aids regulation and stabilization of stream flows, thereby lessening water supply problems.

Recommended Water Resource Guidelines

- Provide solutions to water resource problems in the form of conservation, treatment, and animal waste management measures. In conjunction with the Little Seneca Lake project, a report entitled Seneca Creek Watershed was published by the Montgomery and USDA Soil Conservation Districts, the USDA Forest Service, and the Environmental Division of the MCPB in November, 1979. This is a valuable land management document and should be the prototype for future land management reports for other agricultural areas.

- Preserve and improve the water quality and quantity of streams in the Agricultural Preservation Study Area[49] and reduce the harmful effects of flooding, erosion, and sedimentation by requiring that new development within the proposed growth areas of Clarksburg and Damascus be chaneled and phased in accord with a comprehensive watershed management program.

Appendix E highlights those streams with high density development at their headwaters that could experience accelerated channel erosion and significant water quality degration, if protective measures are not taken. Other areas within the Study Area though not judged sensitive but with some potential to impact streams, are also listed.

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48 WSSC Technical Report #1003, "Effect of Urbanization on Stream Flow and sediment transport in the Rock Creek and Anacostia River Basins, Montgomery County, Maryland, 1974.

49 An extensive listing of management practices are already listed in the MCPB report entitled, "The Functional Master Plan for Rock Creek Basin and the Seneca Creek Watershed Study.

Air Quality

The maintenance of clean air resources is another environmental process in which farmland use has an important impact. Air pollution is a product of many variables, the most important of which are land use, source location, and meteorology. Since automotive travel is one of the leading causes of air pollution in the Washington Metropolitan Area (especially of hydrocarbons and ozone), land use factors which affect the distribution, number, and length of trips are major determinant of air quality. Considering the processes that determine air quality, the existence of farmland and open space can help in a variety of ways.

First, farmland is a substitute for dispersed suburban growth. Dispersed growth patterns increase a major source of air pollution and energy consumption, automobile travel. A more compact growth pattern is encouraged in the General Plan. Compact growth can result in greater reliance on public transit and reduced reliance on automobile use. The net effect should be less air pollution and energy use.

The Metropolitan Washington Air Quality Plan, published in 1978, by COG recognizes the need to reduce pollutants from transportation sources. Numerous measures are being pursued to encourage use of mass transit and discourage long automobile trips. Current efforts to revise the plan will address land use issues, such as the regional growth pattern.

A second value of the open farm areas of Montgomery County related to the concept of regional air sheds. One theory holds that the land upwind from the city should be kept free of pollution sources in order to provide clean air to ventilate pollutants from the adjacent urban areas. The prevailing wind direction may be utilized in making this determination. Another concept holds that the determining factor in airshed identification is the direction of the wind during periods of inversion.

For metropolitan Washington, an investigation of the wind direction during all periods of inversion during the period from 1961 to 1964, shows that about 29 percent of the time the wind was from the west sector and 33 percent of the time it came from the north sector. For either theory, the land area to the northwest of Washington would therefore seem to be an important airshed for the city.[50]

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[50] Sugarloaf Regional Trails, "Environmental, Social, and Cultural Aspects of Farmland Retention," October 31, 1977.

The effect of inversions is based on research data provided by George C. Holzworth, who has undertaken the study of inversions in many areas of the country, Washington, D.C. included. His data includes wind speeds and wind directions at various altitudes and for various types of inversions. The Washington information is based on observations at Dulles Airport. To the extent that we have extrapolated the data to the center of the urban area, and not accounted for variations in surface winds caused by local topography, the findings are an approximation. However, the general conclusions are accurate. This concept of air sheds is derived from the work of Landsberg.

While a large part of this area is already urbanized, and the air is already contaminated by pollutants from vehicle exhausts, the remaining open land is predominantly farms. The retention of the remaining farms in Montgomery County is important to protection of this airshed.

A third consideration, is the removal of pollutants by agricultural products, such as alfalfa. Agricultural scientists recognize that pollutants are absorbed in the open pores of green plants during daylight hours thereby helping to cleanse the air. Plant damage, however, has been demonstrated at ozone levels well below public health standards; the Washington area has experienced violations of the Federal ozone standards for many years.[51] There exists a concern for overall plant productivity given these ozone levels.

The amount of pollutant uptake by green plants is influenced by several factors. A larger volume of green area will take in more pollutants. Taller plants, such as trees, will absorb more pollutants due to a greater exposure to air movements.[52] Thus woodlands are likely to absorb more pollutants than agricultural crops. An area of concern with crop lands is the potential for reduced productivity caused by high pollution levels.[53]

In summary, the following points concerning air quality and farmland may be noted.

1. Farmland substitutes for suburban growth and reduces the amount of auto travel as a source of air pollution and energy use.

2. Open areas, free of pollution sources, provide clean air to ventilate the pollution of adjacent urban areas. Thus, Montgomery County is a valuable source of clean air for the metropolitan area, if the remaining open areas within the airshed region are retained.

Wildlife Resources

In a time of diminishing natural areas and the wholesale retreat of nature on many fronts, it is important to recognize the value of wildlife and to understand the role which farmland plays in maintaining its existence.

Probably more important than the widely recognized value of widelife for sport, there is a value derived from the role which wild animals play in the environmental system. Humans cannot remove themselves from the natural systems and cycles of the earth.

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51 Abeles, Fred B., and Heggestad, Howard E., "Ethylene: An Urban Air Pollutant: (Journal of the Air Pollution Control Association), January, 1973. Ethylene is one of the hydrocarbons that contributes to ozone pollution in the region.

52 Heggestad, H.E., "How Plants Fight Man-Made Pollution," (The Science Teacher), April, 1972.

53 Heggestad, Howard E., U.S. Department of Agriculture, Beltsville, conversation with Don Downing, M-NCPPC staff on February 29, 1980.

Man must still rely on other creatures to perform important functions in natural systems. One example is the part which wildlife play in assuring stability in the overall eco-system. Human beings are, for instance, near or at the top of the food chain--that is, they eat big fish that have eaten other fish that in turn have eaten smaller animals that feed on phytoplankton. We rely on many plants and animals which had seemed superfluous until recently. Nonetheless, wild animals still play an important role in the regulation of the supply of man's food: for example, the eating of harmful insects by birds. We are still not fully aware of the total role which wildlife plays in maintaining the overall econogical balance of farmland. Given the increasing economic and health costs of chemical maintenance of the food chain, it would not seem prudent to overlook the importance of wildlife which naturally perform this function.

Another value associated with protection of wildlife is the cultural value--the motivation associated with nature students, birdwatchers and wilderness travelers who wish to observe and be a part of an unaltered natural system. Thousands of persons engage in camping, hiking and even pleasure driving each year. The experience that all these people seek and will continue to demand is largely based on the kind of unspoiled environment of which wild creatures are a primary part. Here in Montgomery County it is still possible to see deer and beaver and other important wild-life such as the more rare wild turkey and wood duck. Moreover, parts of the County are home to uncommon or rare and endangered species such as the osprey and herons. The preservation of the outdoor recreation experience depends more and more on the preservation of species such as these in order to assure the totality of the wildlife ecoystem.

Farmland retention can play an important role in the maintenance of these wildlife values through the effects which it would have on conservation of wildlife habitats. Perhaps the most fertile wildlife habitat is the forest edge or point where forest joins fields, pastures or croplands. Often in such areas (called ecotones), the types of different species and their numbers are much greater than in the communities to either side.

While it is true that creation of farm acreage out of forest will decrease the number of certain species, many game animals such as pheasant, rabbits, dove and white-tailed deer, and such non-game species as song birds tend to thrive in the field edge and in the hedgerows and bushy fence lines of the farm. As farmland is developed, the available habitat for most field and woodland edge species disappears, which results in a decline or elimination of their populations.

To summarize, the following important factors regarding agriculture and wildlife habitat should be noted:

(1) Wildlife preservation is justified on the basis of economic, environmental, and cultural value of wild animals.

(2) In urbanizing areas, wildlife habitat is greatly diminished, becoming largely confined to edges or ecotones.

(3) Preservation or maintenance of habitat is the most effective game management tool.

(4) Farmland has an abundance of fertile edges, open fields, and pasture land that are highly productive game habitats.

Recommended Sludge Site Guidelines

While it is unpleasant to contemplate, farmland is also important in supplying sites for the disposal of urban-generated waste. Increasingly, land disposal of sewage and recycling its nutrients through crop production is a way of handling urban sewage which can be used in the production of feedgrains. Good farmland is also a prerequisite to an environmentally viable site for the disposal of solid waste.

This Plan recommends that sludge sites purchased by the County, once restored, should be leased or sold back to farmers (minus development rights) for agricultural activities not involved in food cycle production until the State Department of Health authorizes the land to be put back into food cycle production.

The Plan strongly recommends that the County act as soon as possible to provide an alternative to trenching of raw sludge on farmland. A sludge composting facility, for instance, could produce an agriculturally valuable product without temporarily or permanently taking large acreages out of cultivation.

RURAL COMMUNITIES

Rural communities are scattered through the Agricultural Preservation Study Area and each possess unique social and physical characteristics. As noted in the 1973 Rural Zone Sectional Map Amendment,[54] these settlements are an organic part of every rural area in the County. In most cases they are old settlements with well-known place names. The people who live in them have historical ties to the community. There are ties of kinship among the families and often the community is unified by such local institutions as a post office, a retail store, or a church.

Rural communities in the Study Area include - Etchison, Beallsville, Big Woods, Berryville, Lewisdale, Browningsville, Dawsonville, Sugarland, Hyattstown, Jerusalem, Jonesville, Mt. Zion, Martinsburg, Dickerson, Unity/Sunshine, Barnesville, Boyds, Comus and Thompson's Corner. These rural communities are characterized by a strong sense of place and strong ties of kinship. Most residents wish to continue living in them and want their children to have the same opportunity.

Rural Community Guidelines

- Prepare individual master plans for selected rural communities in the Study Area.

- Maintain existing scale of development. New development should be consistent with the historical character and community lifestyles in rural settlements.

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54 Rural Zone Sectional Map Amendment, Montgomery County, Maryland, Montgomery County Planning Board, November 1973.

- Rehabilitate or replace dilapidated structures; these should be the major tools for upgrading housing deficiences.

- Investigate use of publicly provided innovative individual or community sewage disposal systems, since poor soils and related health problems prevent the "filling-out" of these communities.

- Investigate the use of a "Rural Village Zone" to provide for a mix of residential lot sizes and limited commercial uses.

EFFECT OF THE PRESERVATION PROGRAM ON THE COST OF HOUSING

The effect of the proposed agricultural preservation program on housing prices and supply should be addressed since the program would affect a substantial land area.

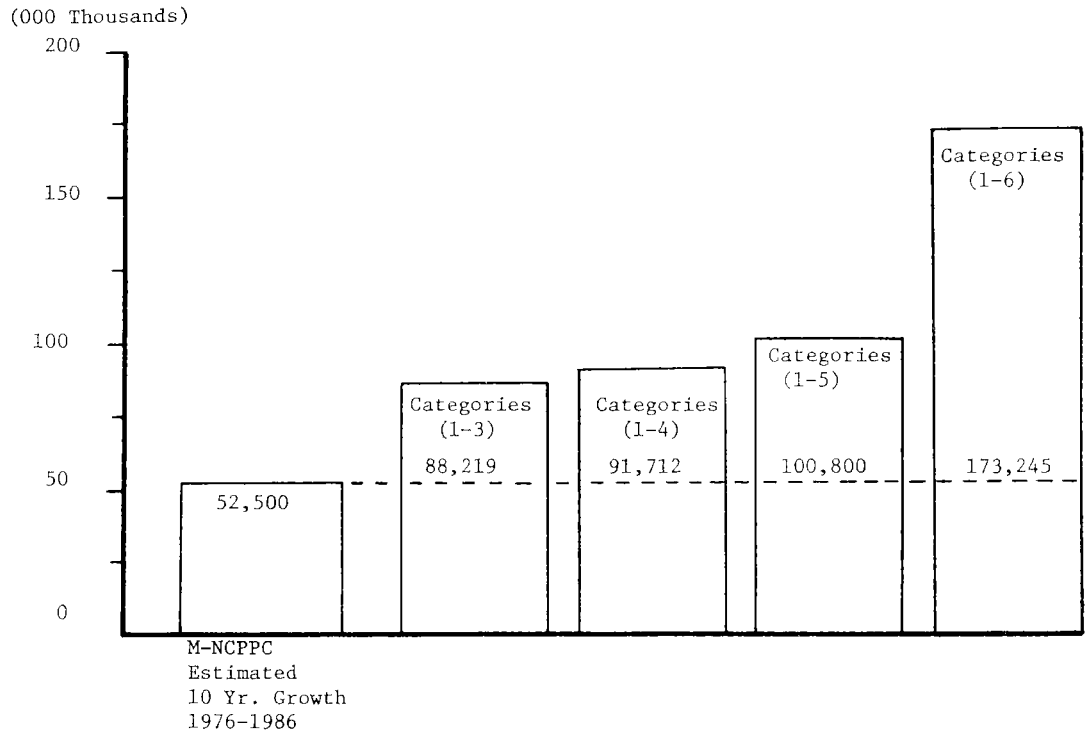
Overall, the program is expected to have little effect on the price of housing being offered within the County. Almost all the houses built on large lots are in a very high price range. This factor, coupled with the extensive supply of vacant land suitable for residential development located within the ten year sewer service envelope, suggest that the density restrictions and clustering provisions are not a major influence on the supply and, therefore, the price of new home construction in Montgomery County.

Zoning is one of many factors which determine final prices for housing. The accessibility and aesthetic appeal of the homesite and neighborhood, the quality and quantity of public services available, interest rates and mortgage structures, household income levels and the wage price structure of the building industry, builders profit and land development costs are among a host of many factors that influence housing prices. Zoning has a primary influence on density of development and therefore influences two major components of housing costs, raw land prices and developed lot costs. Studies have shown that in terms of the average long-term monthly payments for housing expense faced by a homeowner, these costs comprise about 8 percent of total housing costs. They are substantially exceeded by mortgage interest costs, construction costs and taxes.

Rural zoning density requirements impact on housing prices arises from the potential effect on the supply of land available for new housing. This is primarily manifested in the price of raw land paid by developers who undertake housing development projects. Of primary consideration here is the relative supply of vacant land available to meet reasonable and realistic housing needs. This relationship can be examined on Table 2. A ten year forecast of housing construction, for the period 1976 to 1986, based on past development trends in the County is 52,500 units. This activity level has been used in the numerous planning policy statements adopted by the County, and is that level adequate to accommodate normal population and household growth. Land holding capacity based on existing zoning available within the sewer envelope to serve this development activity level totals 100,500 units, plus 173,245 outside the envelope. At the projected 10-year rate, this is enough land for 52 years of housing construction in the County, both inside and outside the sewer envelope.

TABLE 2

Dwelling Unit Potential On Vacant Land
By Sewer Service Category



(1-3) Areas served by community and multi-use systems which are either existing or under construction.

Areas served by extensions of existing community and multi-use systems which are in the final planning stages.

Areas where improvements to or construction of new community and multi-use systems will be given immediate priority and service will be provided within 2 years.

(4) Areas where improvements to or construction of new community and multi-use systems will be programmed for the 3 through 6 year period.

(5) Areas where improvements to or construction of new community and multi-use systems are programmed for the 7 through 10 year period.

(6) Areas where there is no planned community service. This consists of all areasnot included in categories 1 through 15.

Source: Montgomery County Planning Board Information File, September, 1977

Development within the rural areas (i.e., development on septic systems) as a component of total development in the County is shown on Table 3. The development experience over the 1970's has shown that a minor part of total construction occurs outside the sewer service area, on the average about 7.4 percent. If it is assumed that over time this same share of total residential development would occur in the rural areas of the County, then a 10-year development activity rate for the rural area would be 3,885 units (52,500 x 74). The current holding capacity based on existing zoning of rural area vacant land is approximately 44.6 times this amount, enough for any foreseeable development based on current development experience. Development capacity within the sewer service area is much tighter, i.e., based on a 10-year development rate of 48,615 (52,500 - rural development of 3,885 units).

TABLE 3

Proportion of Total Dwelling Units Constructed

	1970-1978 Entire County	Rural Area*	% Rural Area
1970	4,162	262	6.3
1971	6,640	396	5.9
1972	7,484	427	5.7
1973	8,468	439	5.2
1974	6,156	317	5.1
1975	2,281	295	12.9
1976	2,042	229	11.2
1977	3,213	301	9.4
1978	3,224	575	17.8
Total	43,670	3,241	7.4

* Defined As On Septic System.

Because of the inventory of available land, the density constraints within the rural zone area is expected to have a very minimal influence of raw land prices for residential development. To the extent that transfer of development rights is made possible, this would have the effect of making more land available for the building of moderate cost higher density forms of housing. By increasing the effective land yield through per acre density increases in TDR receiving areas, this would tend to stabilize raw land price or even reduce prices now prevailing under existing zoning density controls.

From a marketing standpoint, land within the sewer envelope is of much greater value to the housing industry. Essentially, this is because in those areas outside of the sewer service envelope, a combination of low density zoning and septic system requirements necessitate large single-family lots, which typically means expensive homes aimed at the higher income, lower volume home building market. The smaller lot, townhouse, and apartment zone, where more moderate cost housing is built in volume, is reserved for areas which are served or are planned to be served by public sewer service.

The price distribution of sale housing in Montgomery County for 1978 and 1979 is shown on Table 4. Of the housing sales monitored in the Rural Zone area, virtually no sales were under $50,000. While almost 50 percent of current sales in the entire County were under $65,000, only 24 percent of total sales in the rural area were so priced. The mean (average) price of sale housing in the rural area for this period was $77,820 versus an average price in the total County of $73,430 (including condominium sales.

TABLE 4

Price Distribution of For Sale Housing
Montgomery County
1978 and First 6 Months of 1979

New Units Sold

Price Range	Entire County	Rural Area*
Under $35,000	.6	-
35,000 - 49,999	17.0	-
50,000 - 64,999	31.7	23.9
65,000 - 74,999	14.3	35.4
75,000 - 84,999	5.3	16.1
85,000 - 94,999	3.4	5.4
95,000 - 109,999	8.5	6.9
110,000 - 124,999	8.1	9.2
125,000 - plus	11.1	3.1
	100.0%	100.0%
Mean Price	$73,430	$77,820
Total Sales	2,805	130

* Defined As Election Districts 9, 2 & 1

A comparison of per unit lot development costs for various zoned densities illustrates why density and sewer service is critical in determining housing prices. Based on information developed by the Suburban Maryland Homebuilders Association, the various costs are presented in Table 4. For a townhouse lot with an average frontage of 20 feet, lot development costs are $6,430. In contrast, for a typical house in the Rural Zone area with an average lot frontage of 110 feet and septic and well system, total lot development costs are $19,560 or 3.04 times higher. Finished lot development costs are the key to the final home market price. The higher the lot development costs and raw land costs, the higher the home must be priced. If a constant raw land price of $5,000 per unit is assumed for the two development examples at Rural Zone densities and townhouse densities, and a ratio of 4:1 for finished lot cost to final house price is assumed (this is a fairly standard ratio used by the building industry), then the resultant minimum prices would be $45,720 under the townhouse density and $98,240 under the Rural Zone density provision.

The above cost analysis indicates that it is not likely that any moderate cost housing will be produced in the Rural Zone areas unless it is in the rural villages or in the denser zones in Damascus, Olney, Clarksburg, and Poolesville. To the extent that the density is further restricted under the Rural Density Transfer Zone (RDT) outside the sewer service area, and the rural densities by right are transferred to higher density receiving areas within a sewer service area, then the opportunity for providing moderate cost housing is enhanced.

Also, some moderate cost housing may be produced within the Study Area in situations where relatives of the landowner may develop housing at reduced costs due to land provided as a gift or below market cost. This option has been maintained in the various provisions of the existing Rural Zone and will be maintained in any amendments.

By restricting the total lots to be subdivided in Rural Zone areas as would occur if a Rural (Preferential) Agricultural Zone (RA) were recommended, the potential housing units outside the sewer service area would be reduced. However, with a gross vacant land holding capacity which is 44.6 times the current expected 10-year construction rate, this impact is expected to be minimal, requiring certain developers to merely search elsewhere in this expansive area for alternative building sites. Unless a scarcity can be claimed for large rural lots, this cannot be expected to put upward pressure on raw residential land prices and hence the price of housing.

To the extent that clustering options are offered under the Rural Cluster Zone (RC), some increase in raw land price can be expected, but this would not influence the key lot development costs, and will have the effect of slightly increasing already high priced housing, depending on whether the builder can pass on increased costs to the buyer which depends on the local market and the propensity of housing buyers to pay higher prices for larger homes on larger lots.

CHAPTER VII: THE NEXT STEP

Montgomery County now has reached a turning point in its growth and development. It can, by allowing development to proceed as it has in the past, allow its basic character to be permanently altered. Or it can, by forming an effective partnership of private and public interests, rural and urban philosophies, new and old ideas, revitalize and sustain its agarian heritage in a way that is not only environmentally wise but legally and economically practical.

This chapter focuses on the actions which should be taken to implement and supplement the agricultural preservation recommendations of the Plan. If the Agricultural Preservation Study Area is to develop in an orderly fashion--in the proper places, at the proper times, and in the proper sequence, a series of decisions about zoning, capital improvements, subdivisions and other County policies and programs must be made. Moreover, it will be necessary to establish a continuous process of monitoring development so that these policies and programs can be fine tuned.

The preservation program can be carried out by taking the following actions:

PLANNING ACTIONS

A. APPROVE and adopt this Functional Plan and proceed with the Sectional Map Amendment process immediately - MCPB and Council.

B. APPROVE use of a County Development Rights Fund, to purchase development rights - MCPB and Council.

C. UTILIZE master plans and master plan text amendments to identify TDR receiving areas - MCPB and Council.

D. INITIATE an update of the 1968 Clarksburg Master Plan - MCPB.

E. CONTINUE master plan revision for the Damascus Planning Area - MCPB.

F. APPROVE and adopt Poolesville Vicinity Master Plan land-use recommendations as consistent with this Plan - MCPB and Council.

G. DIRECT public open space policies toward protecting farmland - MCPB.

The acquisition of public open space can be utilized to separate suburban uses from critical mass areas. The "greenbelt" concept in Germantown is a good illustration of this principle.

H. SUPPORT open space recommendations in the Darnestown, Sandy Spring/ Ashton, Upper Rock Creek, and Cloverly - MCPB and Council.

Preservation of these areas will serve to protect the Agricultural Reserve by providing low density buffer areas.

I. INITIATE selected Rural Community master plans - MCPB.

J. INVENTORY all public lands in the Study Area to identify possible surplus sites or other sites that might be leased to County farmers until such time that the government needs the land - MCPB.

Productive farmland, in public ownership, should be leased to farmers for active farm use under requirements for proper management of the land, until such time that the government needs the land for other uses.

Surplus public lands in appropriate areas should be sold as farmland without any development rights. The Clarksburg Site (Site 30) which the County acquired as a potential landfill site might be an example of such an opportunity. Its sale (or lease) by the County would be a strong statement of its intention to promote agriculture.

Sludge sites, once used, should be sold or leased to farmers without development rights. Although the land cannot be put back into food chain production for an indefinite period of time it could be used for sod farming, nursery products, horse grazing, or crops useful for energy production.

K. MONITOR disposition of Rural Open Space Zone lands - MCPB.

The development of such an open space inventory is important so that farmers can be kept aware of leasing opportunities within the zone, thereby fully utilizing the open space for agricultural purposes when possible.

L. INITIATE watershed studies similar to the one prepared by the State and Federal Soil Conservation Services and the Environmental Division of the MCPB, entitled, Seneca Creek Watershed so that agricultural land management policies can be established for other areas in the Agricultural Reserve - SCS and MCPB.

PROGRAMMING ACTIONS

M. REVISE 10-year Water and Sewer Plan text which includes rural sanitation policies and Capital Improvements Program projects to reflect recommendations included in this Plan - DEP and Council.

Generally limit Capital Improvements Program spending in the Agricultural Reserve, except for safety and general maintenance projects.

REGULATORY ACTIONS

N. APPROVE use of agricultural activity protection notice on final plats for residential uses in the Agricultural Reserve - MCPB.

In order to create a positive understanding of the intent of the Agricultural Reserve, a notice should be included on all final plats creating residential building sites in the Agricultural Reserve to read as follows:

"Agriculture is the preferred use in the Rural Density Transfer Zone. All agricultural operations shall be permitted at any time, including the operation of farm machinery and no agricultural use shall be subject to restriction because it interferes with other uses permitted in the Zone.

O. EXAMINE nuisance laws on State and County levels so that legislative action can be taken to protect farms in the Agricultural Reserve - County Attorney.

P. DEVELOP criteria for public development right purchases - Agricultural Preservation Advisory Board and Committee and Office of Economic Development.

Since funds will be limited, criteria should be developed for the purchase of easements that have the greatest public benefit in terms of farmland preservation.

Q. REVISE tax laws to respond to recommendations of this Plan - MCPB, Council and State.

SUPPLEMENTARY ACTIONS

R. CONTINUE and expand marketing information programs for the small or new farmer - Office of Economic Development.

Marketing assistance by local government can be of material help, particularly to small cash crop producers. The newly approved Roadside Farm Market Zoning Text Amendment and the opportunities available at the County sponsored farmers markets should be highly publicized.

S. INVESTIGATE how County sponsored low interest loans could be made available to County farmers or farming associations in the Study Area or in agricultural districts for the purpose of capital improvements or agribusiness endeavors - Office of Economic Development.

T. WORK with the Board of Education to enlighten students in selected schools about careers in the agricultural industry and respect for agricultural property - County Agricultural Extension Agent.

U. REQUIRE County to assess Federal, State, and County programs to measure impact upon agricultural land - Office of Economic Development.

V. ENCOURAGE federal, state, county, foundation and private conservancy acquisition programs or voluntary covenants for the preservation of farmland and open space - Office of Economic Development.

As part of the comprehensive growth management effort in the County, the Agricultural Preservation Advisory Board and the Council should actively encourage the formation of voluntary agricultural districts particularly where they are strategically important to the preservation of farmland and open space.

APPENDIX A: SUMMARY OF RURAL DENSITY TRANSFER ZONE (RDT) AND RURAL CLUSTER ZONE (RC) **

RURAL DENSITY TRANSFER ZONE (RDT)

This is a new zone that has been added to the Montgomery County Zoning Ordinance; it will not replace the existing Rural Zone.

The new RDT zone is designed to be used in areas of the County where agriculture is the primary land use and the residential development right of a property may be transferred as an option; more specifically, this new zone is recommended in areas designated for inclusion in the Agricultural Reserve.

The following is a summary of the text from the RDT text amendment which focuses on the land uses, development standards, and exempted lots and parcels.

59-C-11.1 LAND USES

No use shall be allowed except as indicated in the following table.

- Permitted uses. Uses designated by the letter "P" shall be permitted on any lot in the zones indicated, subject to all applicable regulations.

- Special exception uses. Uses designated by the letters "SE" may be authorized as special exceptions, in accordance with the provisions of article G.

Agricultural	
Farms	P
Primary agricultural processing	P
Roadside farm markets	P
Graneries	P
Abattoir	SE
Secondary agricultural processing	SE
Vineyards	P
Wayside stands, for sale of farm products[1]	P
Other uses related to agriculture	P
Manufacturing and Industrial	
Sawmills	SE
Fuel production as agricultural by-product	SE
Wineries	SE

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1 Must be at least 20 feet from street right-of-way and provide at least 3 off-street parking spaces.

** Refer to section 59-C-9 of the Montgomery County Zoning Ordinance for current agricultural zones. Revisions have been made (as of February 1989).

Residential

Dwelling, one-family detached	P
Farm tenant houses	P
Farm tenant mobile home, one only	P
Farm tenant mobile home, more than one but less than 4	SE
Guest houses, as accessory uses	P

Transportation, Communication and Utilities

Airstrip, associated with farm	SE
Electric power transmission and distribution lines, overhead, carrying more than 69,000 volts	SE
Electric power transmission and distribution lines, overhead, carrying 69,000 volts or less	P
Electric power transmission and distribution lines, underground	P
Helistops, associated with farms	SE
Parking of motor vehicles, off-street, in connection with any use permitted	P
Pipelines, above ground	SE
Pipelines, underground	P
Public utility buildings and structures	SE
Radio and television broadcasting stations and towers	SE
Railroad tracks	P
Telephone and telegraph lines	P

Commercial

Antique shops	SE
Blacksmithing	SE
Farm machinery; sales, storage or services	SE
Farm supply; sales, storage or services	SE

Services

Ambulance or rescue squads, publicly supported	P
Animal boarding places	SE
Animal cemeteries	SE
Cemeteries	SE
Child care residences for not more than 8 children	P
Child or elderly day care facilities for not more than 4 individuals	P
Churches, memorial gardens, convents, monastaries, and/or places of worship	P
Eleemosynary and philanthropic institutions	SE
Fire stations, publicly supported	P
Hospitals, veterinary	SE
Offices, professional, residential, for a resident of the dwelling	P
Publicly owned or publicly operated uses	P
Sanitariums	SE

Cultural, Entertainment and Recreational

Boathouses, private[2]	P
Hunting and fishing cabins	P
Kennels, non-commercial	P
Private clubs and service organizations	SE
Riding stables	P
Riding stables, commercial	SE
Rifle, pistol and skeet shooting ranges, outdoor	SE
Swimming pools, private	P

Resource Production and Extraction

Fish hatcheries	P
Forestry	P
Game or poultry hatcheries	P
Horticultural nurseries and commercial greenhouses	P
Milk plants	P
Rock or stone quarries	SE
Sand, gravel, or clay pits, or extraction of other natural materials	SE

Miscellaneous

Accessory buildings and uses	P
Signs; in accordance with Article F	P
Wildlife or game preserve, regulated shooting ground licensed by the Maryland Wildlife Administration, and other conservation areas	P

59-C-11

59-C-11.2 PURPOSE CLAUSE

The purpose of this zone is to promote agriculture as the primary land use in sections of the County designated in the General Plan by providing large areas of generally contiguous properties suitable for agricultural and related uses and permitting the transfer of development rights from properties in this zone to properties in designated receiving areas.

59-C-11.3 DEVELOPMENT STANDARDS

The following requirements shall apply in all cases except as specified in Section C-11.5.

59-C-11.31 Density. No more than one one-family dwelling unit per twenty-five acres shall be permitted. (See Section C-11.4 for permitted transferable density.)

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2 As accessory uses, serving a principal use located on the same tract of land.

59-C-11.32 Net Lot Area. No main building hereafter erected, together with its accessory buildings, shall be located on a lot having a net area of less than 40,000 square feet.

59-C-11.33 Lot coverage, percentage of. Not more than ten percent of the net area of the lot may be covered by buildings, including accessory buildings.

59-C-11.34 Yard, front. Each lot shall have a front building line at least fifty feet from and parallel to the front lot line or a proposed front street line, if such has been established within the lot, or such additional setback as indicated as a scenic setback in a Master Plan, to provide a front yard.

59-C-11.35 Yard, side. Each lot shall have two side yards, the sum of which shall be at least thirty-five feet; each side yard shall be at least 17 feet. The width of a side yard which abuts a public street shall be calculated in the same manner as a front yard.

59-C-11.36 Yard, rear. Each lot shall have a rear yard at least thirty-five feet in depth.

59-C-11.37 Lot width at front building line. Each lot shall have a width of at least one-hundred twenty-five feet measured along the front building line.

59-C-11.38 Lot width at front street line. Each lot shall have a width of at least twenty-five feet measured along the front street line.

59-C-11.39 Building height limit. No building shall exceed a height of fifty feet except that there shall be no height limit for agricultural buildings.

59-C-11.4 TRANSFER OF DENSITY. OPTION.

In accordance with Section 59-A-6.1 and in conformance with an approved and adopted General, Master, Sector or Functional Plan, residential density may be transferred at the rate of one development right per five acres less one development right for each existing dwelling unit, from the Rural Density Transfer Zone to a duly designated receiving zone, pursuant to Section 59-C-1.39.

59-C-11.5 EXEMPTED LOTS AND PARCELS

59-C-11.51 Lots created for children in accordance with the Maryland Agricultural Land Preservation Program shall be exempt from these regulations.

59-C-11.52 The following lots shall be exempt from the area and dimensional requirements of Section C-11.3 but shall meet the requirements of the zone applicable to them prior to their classification in the Rural Density Transfer Zone.

(a) A recorded lot created by subdivision if the record plat was approved for recordation by the Planning Board prior to (date of enactment).

(b) A lot created by deed executed on or before (date of enactment).

(c) A record lot having an area of less than five acres created after (date of enactment) by replatting two or more lots; provided that the resulting number of lots is not greater than the number which were replatted.

(d) A lot created for use for a one-family residence by a child, or the spouse of a child, of the property owner, provided said property owner can establish that he had legal title on or before (date of enactment) and provided that this provision shall apply to only one such lot for each child of the property owner. Any lots created for use for a one-family residence by children of the property owner shall not exceed the number of development rights for the property.

DEFINITIONS

In order to facilitate the understanding of the proposed RDT Zone, the following definitions are provided:

Base Density. The maximum number of dwelling units permitted by the zoning classification of a property in a receiving area computed over the gross area of the property without the use of TDR or the MPDU density increase.

Development Rights. The potential for the improvement of a parcel of real property, measured in dwelling units or units of commercial or industrial space, existing because of the zoning classification of the parcel.

Land Use Plan. The land use element of an approved and adopted General, Master, Sector or Functional Plan as distinguished from the Zoning Plan.

Primary Agricultural Processing. Processing of an agricultural product which does not cause a change in the natural form of the product.

Receiving Area. An area designated on an approved and adopted General, Master, Sector or Functional Plan appropriate for development beyond its base density through the transfer of development rights.

Secondary Agricultural Processing. Processing of an agricultural product which does cause a change in the natural form of the product.

Sending Area. An area designated on an approved and adopted General, Master, Sector or Functional Plan as a sending area appropriate for the conveyance of transferable development rights from the area.

Transfer of Development Rights. The conveyance of development rights by deed, easement, or other legal instrument authorized by local law to another parcel of land and the recordation of that conveyance among the land records of Montgomery County, Maryland.

In order to permit the use of transfer of development rights in Montgomery County the Zoning Ordinance will be revised to reflect the process by using the following language:

59-A-6.1 Transfer of Development for Agricultural Preservation. In order to preserve agriculture, the base density of a property, in any residential zone within a receiving area, may be increased, subject to Planning Board approval and in conformance with an approved and adopted General, Master, Sector or Functional Plan by one dwelling unit, for each development right received from a property designated a sending area.

(a) A development right shall be transferred by means of an easement, in a recordable form approved by the Planning Board. The easement shall limit the future construction of one-family dwellings on a property in the RDT zone to the total number of development rights established by the zoning of the property minus all development rights previously transferred in accordance with this section, the number of development rights to be transferred by the instant transaction, and the number of existing one-family detached dwellings on the property.

(b) The transfer of development right shall be recorded among the land records of Montgomery County, Maryland.

(c) The base density of a property in a receiving area may not be increased beyond the density recommended by the Land Use Plan of an approved and adopted General, Master, Sector or Functional Plan by the transfer of development rights.

(d) A property developed with the transfer of development rights shall conform to the requirements of Chapter 25A of the Montgomery County Code requiring MPDU's. The applicability of Chapter 25A and the MPDU density increase provided by Section 59-C-1.6 shall be calculated after the base density of a property has been increased by a transfer of development rights. The density increase provided by Section 59-C-1.6 may be made without the acquisition of additional development rights.

(e) A request to utilize development rights within a receiving area shall be in the form of a preliminary subdivision plan submitted in accordance with the Subdivision Regulations.

(f) A preliminary subdivision plan together with a request to credit development rights to a proposed subdivision within a receiving area may be filed when at least 2/3 of the development rights permitted to be transferred to that tract of land in accordance with a General, Master, Sector or Functional Plan are indicated to be utilized with the subdivision.

(g) A preliminary subdivision plan using transferable development rights covering property in a receiving area shall contain a minimum of 50 dwelling units unless it is an addition to an existing recorded subdivision served by a community water and sewerage system within the receiving area.

(h) The Planning Board shall approve a request to utilize development rights if the request:

(i) is in conformance with the General Plan and the appropriate Master, Sector and Functional Plans;

(ii) is in accordance with the provisions of this Chapter; and

(iii) is in accordance with the Subdivision Regulations.

(i) Recording of Transferred Development Rights prior to the approval of a final record plat for a subdivision receiving development rights, an easement shall be conveyed to the Montgomery County Government in the form required by 59-A-6.11 (a) limiting the future construction of dwellings on a property in the RDT Zone by the number of development rights received. This easement shall be recorded among the land records of Montgomery County, Maryland, prior to the recordation of a final record plat for any portion of the subject property.

(j) A final record plat for a subdivision receiving development rights shall contain a statement setting forth the development proposed, the zoning classification of the property, the number of development rights utilized, and a notation of the recordation reference of the conveyance required by Section 59-A-6.12.

RURAL CLUSTER ZONE (RC)

This is a new zone that has been added to the Montgomery County Zoning Ordinance. It will not replace the existing Rural Zone.

The new Rural Cluster Zone (RC) is designed to be used in areas of the County which have a compatible mixture of agricultural and clustered low density residential uses. This zone will promote

agriculture and protect scenic and environmentally sensitive areas, by clustering residential large lot development while creating areas of open space which could be used for agricultural uses.

The land uses permitted in this limited zone focus on the provision of low density residential, agricultural land, and agricultural support services.

The following is a summary of the text from the RC Zone which focuses on the land uses, development standards, and exempted lots and parcels.

59-C-10.1 LAND USES

No use shall be allowed except as indicated in the following table.

- Permitted uses. Uses designated by the letter "P" shall be permitted on any lot in the zones indicated, subject to all applicable regulations.

- Special exception uses. Uses designated by the letters "SE" may be authorized as special exceptions, in accordance with the provisions of article G.

Agricultural	
Farms	P
Primary agricultural processing	P
Roadside farm markets	P
Graneries	P
Abattoir	SE
Secondary agricultural processing	SE
Vineyards	P
Wayside stands, for sale of farm products[1]	P
Wineries	SE
Other uses related to agriculture	P
Residential	
Dwellings, one-family detached	P
Farm tenant houses	P
Farm tenant mobile home, one only	P
Farm tenant mobile home, more than one but less than 4	SE
Guest houses, as accessory uses	P
Transportation, communication and utilities	
Airstrip, associated with farm	SE
Electric power transmission and distribution lines, overhead, carrying more than 69,000 volts	SE

1 Must be at least 20 feet from street right-of-way and provide at least 3 off-street parking spaces.

Electric power transmission and distribution lines, overhead, carrying 69,000 volts or less	P
Electric power transmission and distribution lines, underground	P
Helistops, associated with farm	SE
Parking of motor vehicles, off-street, in connection with any use permitted	P
Pipelines, above ground	SE
Pipelines, underground	P
Public utility buildings and structures	SE
Radio and television broadcasting	SE
Railroad tracks	P
Telephone and telegraph lines	P

Commercial

Antique shops	SE
Blacksmithing	SE
Farm machinery; sales, storage or services	SE
Farm supply; sales, storage or services	SE

Services

Ambulance or rescue squads, publicly supported	P
Animal boarding places	SE
Animal cemeteries	SE
Cemeteries	SE
Child care residences for not more than 8 children	P
Child or elderly day care facilities for not more than 4 individuals	P
Churches, memorial gardens, convents, monastaries, and/or places of worship	P
Educational institutions, private	SE
Eleemosynary and philanthropic institutions	SE
Fire stations, publicly supported	P
Hospitals, veterinary	SE
Housing or related facilities for elderly or handicapped persons	SE
Nursing and care homes	SE
Offices, professional, for a resident of the dwelling[2]	P
Publicly owned or publicly operated uses	P
Sanitariums	SE

Cultural, entertainment and recreational

Boathouses, private[2]	P
Golf and country clubs	SE
Hunting and fishing cabins	P
Kennels, non-commercial	P
Private clubs and service organizations	SE
Riding stables	P

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2 As accessory uses, serving a principal use located on the same tract of land.

Riding stables, commercial	SE
Rifle, pistol and skeet shooting ranges, outdoor	SE
Swimming pools, community	SE
Swimming pools, private	P

Resource production and extraction

Fish hatcheries	P
Forestry	P
Game or poultry hatcheries	P
Horticultural nurseries and commercial greenhouses	P
Milk plants	P
Rock or stone quarries	SE
Sand, gravel, or clay pits, or extraction of other natural materials	SE

Miscellaneous

Accessory buildings and uses	P
Signs, in accordance with Article F	P
Wildlife or game preserve, regulated shooting ground licensed by the Maryland Wildlife Administration, and other conservation areas	P

59-C-10

59-C-10.2 PURPOSE CLAUSE

The purpose of this zone is to provide designated areas in the County for a compatible mixture of agricultural uses and low density residential development to promote agriculture, and to protect scenic and environmentally sensitive areas.

59-C-10.3 DEVELOPMENT STANDARDS

The following requirements shall apply in all cases except as specified in Section 10.39 and 10.4.

59-C-10.31 Net Lot Area. No main building hereafter erected, together with its accessory buildings, shall be located on a lot having a net area of less than five acres, except as permitted in Section 59-C-10.39.

59-C-10.32 Lot coverage, percentage of. Not more than ten percent of the net area of the lot may be covered by buildings, including accessory buildings.

59-C-10.33 Yard, front. Each lot shall have a front building line at least fifty feet from and parallel to the front lot line or a proposed front street line, if such has been established within the lot, or such additional setback as indicated as a scenic setback in a Master Plan, to provide a front yard.

59-C-10.34 Yard, side. Each lot shall have two side yards, each of which shall be at least twenty feet in width except that the width of a side yard which abuts a public street shall be calculated in the same manner as a front yard.

59-C-10.35 Yard, rear. Each lot shall have a rear yard at least thirty-five feet in depth.

59-C-10.36 Lot width at front building line. Each lot shall have a width of at least three hundred feet measured along the front building line.

59-C-10.37 Lot width at front street line. Each lot shall have a width of at least three hundred feet measured along the front street line.

59-C-10.38 Building height limit. No building shall exceed a height of fifty feet except that there shall be no height limit for agricultural buildings.

59-C-10.39 CLUSTER DEVELOPMENT - OPTION

(a) Purpose. The purpose of the cluster method of development is to provide greater flexibility in achieving a compatible mixture of agricultural and residential uses and to protect scenic and environmentally sensitive areas without jeopardizing farming or other agricultural use on a portion of the property or on adjacent or nearby properties.

(b) Intent. At least 60 percent of the property shall be reserved for common open space, agricultural, cultural, entertainment, recreational, transportation, communication, utilities, professional office for a resident of the dwelling, or miscellaneous uses as permitted in Section 59-C-10.1, except for the following uses: Abattoir, Secondary Agricultural Processing, Air Strip, Helistop, Radio and Television Broadcasting Stations and Towers, and Outdoor Rifle, Pistol and Skeet Shooting Ranges. No more than 40 percent shall be used for residential cluster development, except that the Planning Board may approve a greater portion of the property to be used for residential purposes if indicated on a development plan approved in conformance with the guidelines as stated below:

(c) Guidelines. These guidelines are in addition to those provided in Section 50-39 of the Subdivision Regulations.

(1) The cluster development plan must locate and arrange the residential development so as to protect, to the maximum extent reasonable, that portion of the tract appropriate for farming.

(2) The cluster development plan must indicate an arrangement of residential development so as to reduce as much as possible any nuisance, jeopardy or conflict between the residential and the agricultural uses both within the tract

and in relation to adjoining or nearby tracts, and to demonstrate the compatibility of the proposed cluster plan with existing development.

(3) The cluster development plan must be so laid out, and protected during construction, as to remain as harmonious as possible with the natural environment, minimizing as much as possible the clearing of trees, grading of earth, disturbing of streams, and other similar dislocations of the natural environment.

(4) The cluster development plan must show how scenic vistas are being preserved or enhanced, and reflect an arrangement which has considered the visual impact of the residential development on such vistas.

(5) The Planning Board may refuse to approve the cluster method or a plan or cluster development if in its judgment:

(a) Significant agricultural, farming or similar activity would be jeopardized unduly through development under the cluster method.
(b) The natural integrity of environmentally sensitive areas would be threatened due to the cluster development, or
(c) Significant scenic vistas would be lost, obliterated or substantially diminished in value due to the cluster development.

(d) Development Standards. The density under the cluster development option shall not exceed 1 unit per 5 acres.

Net Lot Area. No main building hereafter erected, together with its accessory buildings, shall be located on a lot having a net area of less than 40,000 square feet.

Lot coverage, percentage of. Not more than ten percent of the net area of the lot may be covered by buildings, including accessory buildings.

Yard, front. Each lot shall have a front building line at least fifty feet from and parallel to the front lot line or a proposed front street line, if such has been established within the lot, or such additional setback as indicated as a scenic setback in a Master Plan, to provide a front yard.

Yard, side. Each lot shall have two side yards, the sum of which shall be thirty-five feet; each of which shall be at least seventeen feet in width except that the width of a side yard which abuts a public street shall be calculated in the same manner as a front yard.

Yard, rear. Each lot shall have a rear yard at least thirty-five feet in depth.

Lot width at front building line. Each lot shall have a width of at least one hundred twenty-five feet measured along the front building line.

Lot width at front street line. Each lot shall have a width of at least twenty-five feet measured along the front street line.

Building height limit. No building shall exceed a height of fifty feet except that there shall be no height limit for agricultural buildings.

59-C-10.4 EXEMPTED LOTS AND PARCELS

59-C-10.41 Lots created for children in accordance with the Maryland Agricultural Land Preservation Program shall be exempt from these regulations.

59-C-10.42 The following lots shall be exempt from the area and dimensional requirements of Section C-10.3 but shall meet the requirements of the zone applicable to them prior to their classification in the Rural Cluster Zone.

(a) A recorded lot created by subdivision if the record plat was approved for recordation by the Planning Board prior to (date of enactment).

(b) A lot created by deed executed on or before (date of enactment).

(c) A record lot having an area of less than five acres created after (date of enactment) by replatting two or more lots; provided that the resulting number of lots is not greater than the number which were replatted.

(d) A lot created for use for a one-family residence by a child, or the spouse of a child, of the property owner, provided said property owner can establish that he had legal title on or before (date of enactment) and provided that this provision shall apply to only one such lot for each child of the property owner.

APPENDIX B: SMALL FARM ECONOMICS

Prepared by Rene Johnson, Agricultural Coordinator, Montgomery County Office of Economic Development, Rockville, Maryland.

The data expressed in this analysis reflect reasonable land, labor, and management returns to a family from the operation of small farm acreage (25 acres) through vegetable and small fruit production. The results of this analysis show that a 25 acre parcel of land is a feasible size acreage for a productive agricultural business in Montgomery County. It should be noted that under normal topographic and soil conditions only about 60 percent or 15 acres is generally available for cultivation and production. Also, the choice of marketing outlets will affect net income and labor requirements. It is assumed that the family will provide most of the labor but in the tables labor is valued at $5 per hour.

The following tables have been developed using the rather extensive data developed for small farms by the Indiana Cooperative Extension Service in connection with Purdue University. Consultation has occurred with local cooperative extension service personnel, farm suppliers and buyers, and members of farm market groups. Data have been adjusted to reflect, as nearly as possible, local and current conditions. These data should not be considered correct for any particular situation but should be used for comparison.

The tables reflect equipment sized for a 17 Hp John Deere Lawn and Garden Tractor or comparable other tractor such as Sears or Gravely. These tractors are not designed for small farms so much as a large estate in which garden work is incidental to general estate maintenance. However, they can be and are used extensively for small farm work. Sales and service facilities are available. Several excellent makes of tractors, designed especially for small farms, are manufactured by the Japanese although distributed in many instances under American trade names. Price comparison is made in Table 1 between John Deere and Kubota tractors. Referral to a particular trade name does not imply indorsement.

TABLE 1

Price Comparison of Two Sets of Equipment:	I	II
Lawn/Garden Tractor 17 Hp John Deere*	$3,110	
Farm Tractor 17 Hp Kubota Diesel 4-wheel Drive*		$5,130
10" Single Bottom Plow	210	
16" Single Bottom Plow		383
39" Disc Harrow	291	
5' 9" Disc Harrow		535
1-Row Cultivator	132	
1-Row Cultivator		175
2-Bag Fertilizer Spinner Spreader	180	
6-BagFertilizer Spinner Spreader		560
1-Row Seeder With Fertilizer Attachment	277	277
Power Sprayer	775	775
	$4,975	$7,835

* Three-point Hitch Standard Equipment.

TABLE 2

Typical Pre-Harvest Labor Requirements For Small Farm:

VEGETABLE/FRUIT PRODUCTION

Job	Hours Per Acre
Plow/Disc*	6.5
Spread Fertilizer/Lime*	1.0
Spray Weeds/Pests	1.5
Cultivate/Hoe	6.3
Plant Seed	2.5
Transplant** - Tomato	16.0
Cabbage	55.0

* Using equipment set #2 should reduce labor for plowing/discing/fertilzing by at least 50%.

** Using a mechanical transplanter should reduce transplanting labor requirements by 85% for tomatoes and 80% for cabbages.

TABLE 3

Typical Materials Cost Per Acre for Specific Crops***

SWEET CORN

.33T lime @ $14/T.	$ 4.60
150 lb. N @ $.25/lb.	37.50
120 lb. P_2O_5 @ $.20/lb.	24.00
120 lb. K_2O @ $.12/lb.	14.40
1-1/4 lb. Atrazine @ $1.75/lb.	2.20
3-3/4 pt. Sutan @ $18.50/gal.	8.70
10 lb. seed @ $2.50/lb.	25.00
1 qt. Lannate (2 times) @ $26/gal.	13.00
	$129.40

SNAP BEANS

.33T lime @ $14/T.	$ 4.60
80 lb. N @ $.25/lb.	20.00
60 lb. P_2O_5 @ $.20/lb.	12.00
8 lb. Dachtal @ $4.25/lb.	34.00
55 lb. seed @ $1.25/lb.	68.75
1.5 lb. Kelthane @ $2/lb.	3.00
2/3 lb. Sevin (3 times) @ $2.75/lb.	5.50
4 pt. Bravo (2 times) @ $25/gal.	25.00
60 lb. K_2O @ $.12/lb.	7.20
	$180.05

*** Referral to a specific trade name does not imply endorsement.

TABLE 3 (Cont'd.)

TOMATOES

.33T lime @ $14/T.	$ 4.60
80 lb. N @ $.25/lb.	20.00
150 lb. P_2O_5 @ $.20/lb.	30.00
150 lb. K_2O @ $.12/lb.	18.00
3 lb. Deufinol @ $5.25/lb.	15.75
2,800 plants @ $.08/plant	224.00
1-1/2 pt. Guthion (2 times) @ $19/gal.	7.15
1 qt. Dipel @ $10/gal.	2.50
2-1/4 pt. Bravo (6 times) @ $25/gal.	42.20
	$264.20

CABBAGE

.33T lime @ $14/T.	$ 4.60
150 lb. N @ $.25/lb	37.50
100 lb. P_2O_5 @ $.20/lb.	20.00
100 lb. K_2O @ $.12/lb.	12.00
8 lb. Dachtal @ $4.25/lb.	34.00
10,000 plants @ $12.40/1,000 plants	124.00
1/2 lb. Diazinon @ $3.85/lb.	1.95
1/2 lb. Dipel (3 times) @ $1.25/lb.	3.75
	$237.80

CANTALOPE

.33T lime @ $14/T.	$ 4.60
100 lb. N @ $.25/lb.	25.00
100 lb. P_2O_5 @ $.20/lb.	20.00
150 lb. K_2O @ $.12/lb.	18.00
1 gal. Prefar @ $19/gal.	19.00
1 gal. Alanap @ $9/gal.	9.00
1/2 lb. seed @ $76/1/2 lb.	76.00
2 pt. Guthion (3 times) @ $19/gal.	14.25
	$185.85

TABLE 4

Other Typical Costs Per Acre For Specific Crops:*

	Sweet Corn	Snap Beans	Tomatoes	Cabbage	Cantalope
Preharvest Labor					
Direct (Hours)	17.8	17.8	33.8	72.8	31.8
Indirect (.15% of Direct)	2.7	2.7	5.0	10.9	4.8
Cost @ $5.00/hour	$102.50	$102.50	$194.00	$418.50	$183.50
Machinery**					
Fixed	48.00	44.00	57.00	64.00	79.00
Variable	26.00	25.00	33.00	37.00	51.00
Harvest Labor					
Hours	32	133	50	62.5	48
Cost @ $5.00/hour	$160.00	$666.00	$250.00	$312.50	$240.00

* Using equipment set #1 and hand harvest.
** Using 1977 data developed by Purdue University adjusted for price increases.

TABLE 5

Potential Returns From Specific Vegetable Crops Per Acre:

	Sweet Corn	Snap Beans	Tomatoes	Cabbage	Cantalope
Yield per acre	800 doz.	4,000 lb.	10,000 lb.	20,000 lb.	7,200 fruit
Price*	$ 1.25	$ .30	$ .20	$ .07	$ .50
Gross Income	$ 1,000	$ 1,200	$ 2,000	$ 1,400	$ 3,600
Costs					
Materials	$ 129.40	$ 180.05	$ 364.20	$ 337.80	$ 185.85
Preharvest Labor	102.50	102.50	194.00	418.50	183.50
Harvest Labor	160.00	666.00	250.00	312.50	240.00
Machinery	74.00	69.00	90.00	101.00	130.00
Total Cost	$ 470.50	$ 1,022.20	$ 891.70	$ 1,068.35	$ 803.30
Net Return	534.10	182.45	1,101.80	330.20	2,860.65
Land/labor/ Management Return***	$ 796.60	$ 950.95	$ 1,545.80	$ 1,061.20	$ 3,284.15

* Prices representative of direct market sales except for cabbage which is a typical wholesale price; these are 1980 prices.
** Does not include interest on money used or a charge for land rent.
*** Assumes family provides all labor and management.

TABLE 6

Pick Your Own Strawberry Costs and Returns:*

	1st Year	2nd Year	3rd Year
Materials			
Establishment Year	$ 955.00		
First Fruiting Year		$ 450.00	
Second Fruiting Year			$ 450.00
Labor **			
Establishment Year	750.00		
First Fruiting Year		65.00	
Pick Your Own Supervision		480.00	
Second Fruiting Year			65.00
Pick Your Own Supervision			480.00
Machinery			
Establsihment Year	125.00		
First Fruiting Year		45.00	
Second Fruiting Year			45.00
Total Cost	$1,830.00	$1,040.00	$1,040.00
Yield	-0-	8,000 lb.	8,000 lb.
Price		$ .60	$ .60
Return	-0-	$4,800.00	$4,800.00
Net Return (annual 2 years)		1,965.00	
(annual 3 years)			1,896.67
Land/labor/Management Return			
(annual 2 years		$1,612.50	
(annual 3 years			$2,510.00

* An irrigation system for frost protection is a good investment but would add annual capitalized and variable costs of $815.00 per acre.

** Labor charged at $5.00 per hour.

Realistic budgeting should include an interest charge on the amount of money used in the operation. An interest charge has not been made on the assumption the family would be using their own resources. Furthermore, interest rates are very volatile currently and a correct rate would be difficult to determine.

Cabbage has been included not because of large returns, but because of the possibility of double cropping in tandem with snap beans in the fall. Peas could be raised as an early spring crop followed by a fall crop of beans or cabbage. Other crops such as summer squash, cucumbers, peppers and pumpkins also could be raised on a small farm although demand is not as great. Asparagus, blackberries and raspberries are long term crops that have great potential. In addition, they would tend to spread the labor requirements over a longer period of the year. Moreover, they are well adapted to "pick-your-own" operations.

Careful consideration of the family's labor, land and cash resources is required before determining the kind of mix of crops. Excellent demand exists for strawberries, raspberries, sweet corn, tomatoes and cantalope. Corn requires the least amount of labor; strawberries generally the most. Strawberries are harvested early. Corn, tomatoes and cantalope all come on about the same time--mid July through August. Tomatoes and cabbage require the greatest investment in materials although the cost could be reduced considerably by growing plants from seeds. All crops are subject to weather or pest hazards. A variety of crops would provide some security from this risk. At the same time, reducing the number of crops allows application of greater expertise and attention to the ones grown.

The method used for marketing also impacts labor requirements, costs and returns. The referenced bulletins from Purdue University have developed good "pick-your-own" data. Labor and other expenses relative to selling through a road-side stand or farmers' market have not been included. Boxes needed for wholesale marketing have not been included. Hence, net or labor/management returns may be over stated. It should be noted that "pick-your-own" operations require considerable supervisory labor.

As is noted from Table 7, there is potential for considerable labor income. This mix of crops would spread the labor requirements reasonably well over a six-month time period, although with crop production of this nature it is impossible to completely eliminate periods of peak labor demand. It should also be remembered that marketing labor and expense are not calculated. Nonetheless, opportunity exists for successful family operations on a small acreage. Furthermore, they are needed to meet the food demand of the neighboring suburbs.

TABLE 7

A Typical Enterprise Mix:*

Crop	Cash Needed	Labor Needed	Labor Return
Strawberries (5 acres)	$3,450	613 hours	$12,550
Cantalopes (1 acre)	320	116	3,280
Tomatoes (1 acre)	454	91	1,545
Cabbage/Beans (2 acres)	1,176	612	4,022
Corn (4 acres)	816	208	3,184
Forage (2 acres)**	--	--	--
	$6,216	1,640 hours	$24,581

* Numbers rounded.
** For soil building purposes; labor, cash needed not calculated.

REFERENCES:

Maryland Cooperative Extension Services Bulletins -
EB-236 (revised) Commercial Vegetable Production Recommendations
EB-220, Vegetable Gardening in Maryland
AREIS-18, Farm Data Manual

Indiana Agriculture Experiment Station Bulletins -

No. 223, Small-Farm Costs and Returns:
Pick Your Own Vegetables.

No. 232, Small-Farm Costs and Returns:
Pick Your Own Strawberries

APPENDIX C: EXPLANATION OF MARYLAND STATE ENVIRONMENT TRUST

The Maryland Environmental Trust initiated its Conservation Easement Program in 1974 and now, with the close of 1979, the Trust holds 40 conservation easements in nineteen Maryland counties on a total of 9,300 acres. The easement sites range from two acres in Baltimore County to 1,680 acres in Charles County.

A conservation easement is a contract in which a landowner agrees not to develop his or her land but to preserve it in its natural or agricultural condition. The easement permanently prevents industrial, commercial or residential development of the property, erection of any billboards and other advertising devises, the clearcutting of woodland and the dumping or excavation of any materials unless it results from the agricultural or forestry uses of the property. The landowner retains all other rights of ownership not expressly restricted by the agreement.

The easement restrictions remain on the land in perpetuity, in other words, they are binding upon future owners of the property. The landowner, the Maryland Environmental Trust and their successors are responsible for entering the terms of the agreement. If a breach of the terms occurs, the Environmental Trust can obtain a court order requiring the restoration of the property to its prior condition at the expense of the party violating the terms of the agreement.

David Miller, Executive Director of the Trust, says that "a conservation easement is a simple but effective land preservation tool; it prevents the destruction or degradation of the land without significant public expenditures for acquisition or management, and leaves the land in private ownership."

Since an easement will usually reduce the fair market value of the land by excluding development, most land owners cannot afford the decrease in the value of their land without some financial compensation.

Under the present regulations governing federal income taxes, landowners may treat the donation of an easement to a non-profit, charitable organization as a charitable deduction.

Therefore, the value of the donated easement (which is calculated by taking the difference between the fair market value of the land before and after the easement donation) may be deducted from one's taxable income by 30 percent of the donor's adjusted gross income. This deduction can be made for six consecutive years or until the value of the easement has been used up, whichever comes first. In a case study of the tax effects of hypothetical easement donations, the Kent Foundation, Inc., found that in some instances an easement can result in as much as a 56 percent reduction in one's income taxes just in the first year of using the deductions.

An easement will also reduce the discriminatory effect of federal estate taxes. Under the present code, the land in an estate must be assessed at its development or speculative value regardless of its current use, unless it qualifies as farmland. The speculative value of farmland or woodland can be five to ten times more than the current use value. With the estate tax rates as high as 70 percent of this speculative

value, the tax bill can exceed more than 100 percent of what the land is worth for its existing use. The I.R.S. does allow use valuation (as opposed to a speculative valuation) for land that qualifies as farmland. Unfortunately, the I.R.S. has written regulations which preclude a large amount of genuine farmland from qualifying as farmland. This use valuation also is limited to a $500,000 maximum credit from the speculative valuation.

An easement ensures the unconditional use valuation of the land. The land is taxed at its woodland or farmland value and there are no limitations to the amount that this use valuation can decrease the land's value from the potential speculative value. In the same study referred to above, the Kent Foundation, Inc., found that an easement donation can generate an 86 percent savings in federal estate taxes.

On the local level, an easement can lower the annual real estate taxes by ensuring a farmland assessment. However, in most cases, the land on which the M.E.T. accepts easements is already assessed on the local level as farmland. The true tax savings are attained through the federal income tax deductions and the reductions in the federal estate taxes. The combined effect of both of these deductions is substantial.

With 9,300 acres of woodland, farmland, wetland and pastureland under easement, the Maryland Environmental Trust feels that its Conservation Easement Program has been very successful and hopes to continue and expand the program.

Inquiries regarding the Trust should be made to the Maryland Environmental Trust, Suite 1401, 501 St. Paul Place, Baltimore, Maryland 21202.

APPENDIX D: ENVIRONMENTALLY SENSITIVE AREAS

The following areas are recommended for growth in the Plan and the General Plan. The environmental issues highlighted in this Plan will be addressed fully in the individual area master plans.

1. Damascus

This area, which covers approximately 5,200 acres, is located on a ridge line and is centered just south of the town of Damascus. Forty-four percent of the total uncommitted land is comprised of land very limited or severely limited for septic systems. In addition, slopes in this area are mostly in the 8-15 percent range. Much steeper slopes (15-25 percent or greater) comprise the valley walls of the many streams in this part of the County.

The development of this area has the potential of affecting three different watersheds. Little Bennett and Bennett Creeks drain in a westerly direction through the Little Bennett Watershed. Magruder Branch to the south forms the headwaters of Great Seneca Creek and Scotts Branch drains eastward only a short distance before entering the Patuxent River, a major water supply source. Also, its position in the headwaters is important in terms of groundwater recharge. When development occurs in the headwaters resulting in large areas of impervious surface, there is an increase in the amount of runoff of precipitation. This results in less water percolating through the soil to replenish groundwater supplies and will likely result in a decreased base flow in streams. Environmental issues will be addressed, in detail, during the revision of the Damascus Master Plan.

2. Clarksburg

This area, centered south of the town of Clarksburg, covers 4,680 acres at the northern reaches of the Seneca Creek watershed. A large portion of this area, 60 percent has conditions which are most suitable or only moderately limited to septic systems. Thirty percent of the area, predominately near streams or in areas of shall bedrock, is very limited or severely limited for septics.

This area includes a large portion of the headwaters of both Ten Mile and Little Seneca Creeks. These two streams drain directly into Seneca Lake which is proposed as a source for emergency water supplies.

Slopes are generally not very limiting and range from 3 to 8 percent in most areas except 8 to 15 percent near streams.

The concern here is for the control of erosion and stormwater runoff to protect the water quality of Little Seneca Creek and Little Seneca Lake. Environmental issues will be addressed in detail when the Clarksburg Master Plan is revised.

3. Olney

This area covers 2,928 acres and, although it contains a large portion of committed land (51 percent), is important because of its location on the divide

between Rock Creek and the Patuxent River drainage basins which include headwaters of North Branch, Reddy Branch and James Creeks.

Additional development in the headwaters of Rock Creek must be carefully planned to prevent a further deterioration of the water quality of the stream. As previously mentioned, development in the Patuxent River Watershed must be controlled in the interest of protecting water supplies.

Slopes are generally from 3 to 8 percent with the steeper slopes, 8 to 15 percent, confined mostly to stream valleys. Soils are generally suitable for septic systems.

The effect of headwaters development was recently addressed in the preparation of the Olney Master Plan. Continued care will be required in the design of new development. The major concern is with the northeast quadrant of Olney, where commercial and high density residential uses have been approved. This area forms the headwaters of James Creek, part of the Patuxent River drainage basin.

There are other areas within the Agricultural Preservation Study Area that were not judged to be prime headwaters location but still have potential to impact streams. The primary concern is that industrial and commercial land uses often contain a large percentage of impervious surface that is building and parking lot coverage. Such areas will increase runoff, and thus are a potential cause of stream damage and pollution. In some cases these areas may be located in headwaters of small tributary streams.

1. PEPCO

The PEPCO site covers about 950 acres and is located on the ridge separating the Monocacy and Potomac River Basins. Most of this area contains soils which are very limited for septics and slopes of 8 to 15 percent. The primary concern is that stormwater runoff from this major facility be controlled to prevent pollution of the Potomac River.

2. Burtonsville

Burtonsville appears to have few on-site limitations for development. Moderately deep and well drained Beltsville and Chillum Silt Loam soils are common and slopes are mostly less than 8 percent. However, this area drains into the headwaters of several small tributaries of the Patuxent. The natural features in and along these streams and the water supply reservoir are worthy of protection.

3. Poolesville

Poolesville contains a variety of environmental limitations. Besides the shallow depth to bedrock and higher water table common to this area, development is further constrained by steep slopes, woodlands and floodplains. Of particular concern is the density and design of one area in the northeast portion of the Town. It drains into the Dry Seneca Creek and is designated as a "sensitive area" in the Staff Draft of the Poolesville and Vicinity Master Plan.

Much of the land in Poolesville and Vicinity is not suited for septics due to the thin overburden. Growth of residential and commercial development in this area will depend to a large extent on expansion of the community sewerage system.

The preparation of the Poolesville and Vicinity Master Plan is in its final stages. The report has addressed the environmental issues and characteristics of this area in detail.

4. Riding Stable Road

Located along the County line east of Burtonsville north of Route 198 and comprising 40 acres, this area drains into a small tributary of the Patuxent River and is proposed for single-family residential (R-150) zoning, or planned development zoning at up to 4 dwelling units per acre.

Land in this area is moderately to very limited for septics due to steep slopes up to 15 percent in spots and the predominance of course textured or somewhat excessively drained soils.

The concern here is primarily for the protection of the water supply in the reservoir.

5. Little Seneca Lake (Lake Site 3)

The proposed Little Seneca Lake project is located near Boyds in the upper reaches of the Little Seneca Creek Watershed. This area is characterized by moderately to very limited soil conditions (for septic suitability) and slopes from 3 to 8 percent, except 15 to 25 percent or greater along the valley walls.

This project will have a number of beneficial impacts on this area and is designed to provide for:

- an emergency water supply
- flood control downstream
- water quality improvements downstream
- a reduction of sediment and nutrient loadings to the Potomac estuary
- a 525 acre warm water lake fishery
- 700 acres of public open space
- a major public recreation facility.

APPENDIX E: HISTORIC SITES MASTER PLAN AND ORDINANCE

There are a variety of important historic and architectural resources in the County. Many are identified on the Maryland Historical Trust's Inventory and/or the National Register of Historic Places. The County, recognizing the need for additional protection for these historic sites, developed a Master Plan for Historic Preservation and enacted its own historic preservation legislation in 1979.

Under the Historic Preservation Ordinance, Chapter 24A of the County Code, resources identified on the Locational Atlas and Index of Historic Sites in Montgomery County are afforded limited, interim protection from demolition or substantial alteration. Permits for such actions are withheld by the County until the Planning Board reviews the site to determine whether it will be added to the Master Plan for Historic Preservation. The permit may be issued if the site is not added to the Master Plan.

If included in the Master Plan, the Ordinance provides additional controls over the maintenance, alteration, and demolition of designated resources.

The architectural and historic significance of the Functional Master Plan Study Area resources identified on the Locational Atlas were not reviewed as part of the Functional Master Plan. Since the adoption of the Functional Master Plan, 102 historic resources within the Study Area have been added to the Master Plan of Historic Preservation and sites continue to be added on an on-going basis.

Refer to the Locational Atlas for the precise location of the sites listed here and to the Master Plan for Historic Preservation, as amended, for information on additional future site designations.

Site No.	Name
10/12	Mendelsohn Terrace
10/48	Kinsley School
10/59	Hyattstown Historic District
10/59-1	Davis House
10/70	Sugarloaf Mountain Chapel
10/76	Hyattstown Mill Complex
12/1	Mt.Ephraim
12/2	Harris House
12/5	James Pearre Farm
12/21	Dickerson Station
12/22	Mount Carmel
12/32	Martinsburg Road
12/35	Inverness
12/38	Brewer Farm

Site No.	Name
13/3	Oliver Watkins House
13/7	Ned Watkins House
13/10	Clarksburg School
13/14	Moneyworth Farm
13/30	Burdette/High View Hotel
14/37	Layton House
14/41	Goshen Mennonite
14/58	Goshen Mills Store and Post Office
14/59	Fertile Meadows
14/60	Riggs/Wilcoxen House
15/23	Perry Etchison House
15/37	Tanglewood
15/41	Clifton
15/52	Edgewood II
15/53	Oak Hill
15/55	Spencer/Carr House
15/58	Spencer/Oursler House
15/60	Duvall/Kruhm House
15/65	Waters Gift
15/67	Maiden's Fancy
16/9	Annington
17/9	Old Chiswell Place
17/12	Valhalla
17/19	Chiswell's Inheritance
17/20	Wallace Poole House
17/46	Mount Nebo
17/52	Seneca Quarry
18/8	Boyds Historic District
18/10	Totten House
18/11	Boyds Negro School
18/12	White Carlin Farm
18/21	Darnall Place
18/39	Rocklands
23/5	Israel Griffith House
23/9	Elton
23/12	Royer/Brooks (Greendale)
23/19	Retirement
23/26	The Oaks (Riggs House)
23/29	Fair Hill II
23/31	Pleasant Fields/Sundown Hills
23/33	Bleakwood (Dr. Dwyer House)
23/45	Greenwood Mills Site
23/46	Greenwood
23/57	Falling Green
23/58	Gustavus Jones Farm
23/59	Locust Hill
23/60	Oakley Log House

Site No.	Name
23/63	Longwood
23/64	Oak Grove
23/65	Brookeville Historic District
23/66	Bordley's Choice/Merrywood
23/69	Brookeville Woolen Mill and House
23/71	Far View
23/73	Gittings Ha Ha
23/79	Roslyn Bank Barn
23/82	Grafton Holland Farm
23/84	Brooke Meadow
23/89	Walnut Hill
23/92	Della Brooke
23/93	Sharon
23/97	Rockland
23/98	Olney House
23/98-4	St. John's Episcopal Church
23/100	Headwaters Farm (Ickes Estate)
23/103	John D. Berry House
23/106	Oakdale Emory United Methodist Church
23/107-1	Hyatt/Jones House
23/112	Sycamores
23/113-1	Mount Pleasant Church
23/118	Amersley
23/119	Holland Store and House
23/123	Jacob Allnut Farm
28/1	Mary Chandlee House
28/3	Mount Airy
28/9	Cherry Grove
28/11	Sandy Spring Historic District
28/11-1	Sandy Spring Friends Meeting House
28/11-2	Sharp Street Church
28/11-3	Ashton Orthodox Meeting House
28/13	Norwood
28/14	Woodlawn
28/17	Llewellyn Fields
28/19	Pleasant View Farm
28/32	Hopkins-Frey House
28/33	O'Hare House
28/35	Harewood
28/36	The Sandy Spring

GLOSSARY OF TERMS

1. Agricultural Preservation Study Area: An area comprising approximately 163,000 acres (about half the County) bounded on the west and northwest by the Potomac River and the Frederick County line, on the east and northeast by the Patuxent River and the Prince George's County line, with an irregular southern boundary roughly corresponding to sections of the County which have public water and sewer service with the exception of a large part of the Potomac subregion and a smaller area in Goshen/Woodfield where large lot development on septic systems has already taken place. It includes approximately 110,000 acres identified as Agricultural Reserve; 26,000 acres designated Rural Open Space, and the growth centers identified in the General Plan, including Damascus, Clarksburg, Olney Town Center, and the Town of Poolesville, all totalling 27,000 acres.

2. Critical Mass: An area that contains a significant percentage of land in which large and small farms operate, some scattered rural residential settlements, as well as necessary agricultural support services; such an area is necessary to sustain a viable agricultural industry. Once the critical mass of farms is eroded by too many subdivisions, the agricultural industry declines.

3. Agricultural Reserve: Primary agricultural areas which include the majority of the remaining working farms, as well as other non-farm land uses that will serve to define and support those farms. It represents the County's critical mass of farms and is the focus of the Plan's farmland preservation policies. It totals 110,000 acres. However, only 73,000 acres remain uncommitted and available for preservation.

4. Rural Open Space Areas: Areas in the Agricultural Preservation Study Area abutting suburban development where the critical mass of farms has already been eroded by subdivision activity. The preservation of farmland in an appropriate combination with low density residential development is the objective. There are about 26,000 acres in this classification. It is proposed that they be classified in the Rural Cluster Zone or the Rural Zone (1 unit per 5 acres).

5. Growth Centers: Areas designated for development in the General Plan. The extent and intensity of development will be or already has been identified in area master plans. Included are 27,000 acres comprising Clarksburg, Damascus, Olney Town Center and the Town of Poolesville.

6. Rural Density Transfer Zone (RDT): The proposed zone for the 74,000 uncommitted farm acres in the Agricultural Reserve to be preserved for farming. Actual development would be limited to one house per 25 acres, with the provision that such development could be clustered on lots of 40,000 square feet (approximately 1 acre). The property in this area would be designated "sending areas" and would maintain development rights at one dwelling unit per 5 acres which could be sold and transferred to designated "receiving areas" as a means of providing equity to farmers in the marketable value of their land while enabling them to continue to farm it.

7. Transfer of Development Rights (TDR): The conveyance of development rights by deed, easement, or other legal instrument, authorized by local law, to another parcel of land and the recordation of that conveyance among the land records of

Montgomery County. This conveyance is the basis for the Rural Density Transfer Zone (RDT).

8. Sending Areas: Areas located within the Agricultural Reserve which are the focus of the Preservation Plan. They would have a basic right of development under the zoning applied to them (RDT) of 1 unit per 25 acres, but would be assigned development rights for the purpose of transfer at 1 unit per 5 acres.

9. Receiving Areas: Areas where the availability of land and public services would permit higher density development. These would be designated on master plans after careful study, and would be permitted to receive development rights purchased from farmers or the Development Rights Fund or Bank. The addition of development rights would permit a higher density of development than that permitted by the base zoning classification but up to only the density recommended in an adopted and approved master plan.

10. County Development Rights Fund or Bank: The "bank" would operate during an interim period while "receiving areas" are being studied and designated. Operation of the County Development Rights Fund could involve either one or all of the following functions;

    - Bank guarantees private loans issued through private banks on the value of development rights.

    - Bank makes loans to farmers using development rights as collateral which are retained by farmers.

    - Bank purchases by direct acquisition development rights on farmland funded through general county bond issues.

11. Rural Cluster Zone (RC): A proposed zoning amendment to permit clustering of housing in areas designed Rural Open Space which would permit housing on a tract of land zoned for one unit per 5 acres to be clustered on lots of 40,000 square feet (approximately 1 acre) while retaining the remaining acreage in open space or for agricultural use. The purpose of this zone is to provide designated areas in the County for a compatible mixture of agricultural uses and low density residential development to promote agriculture, and to protect scenic and environmentally sensitive areas.

12. Rural Zone (R): Rural estate housing of 1 unit per 5 acres adopted in 1973 and applied to a major portion of the Agricultural Preservation Study Area by Sectional Map Amendment. This zone will not be eliminated as a result of this functional plan.

13. Rural Communities and Villages: Historic small communities in the Agricultural Preservation Study Area, particularly in the area to which the Rural Zone was applied by Sectional Map Amendment in 1973. These communities were "grandfathered" at R-200 (1/2-acre). These areas should remain zoned R-200 or as in Boyds and Sandy Spring/Ashton which are covered by separate local area master plans. They provide limited commercial activities associated with the farms around them.