

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 --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:

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.

CHANGE IN MONTGOMERY COUNTY TOTAL FARMLAND
BASED UPON TAX ASSESSORS CLASSIFICATION

<u>Year</u>	<u>Total Acreage</u>	<u>Acreage Loss From Preceding Year</u>	<u># of Parcels</u>
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

<u>YEAR</u>	<u>DWELLING UNITS</u>
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 6¹¹. 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

<u>FARM PARCELS</u>	<u>1974*</u>	<u>1978*</u>
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	<u>52,000</u>	<u>47,000</u>
	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 persons¹²

Population Holding Capacity Based on Zone 3 119,000 persons¹²
(excluding areas 1/2 acre zoning or denser) (35,000 D.U.)

Population Holding Capacity Based on Septic System Suitability = 55,000 persons¹²
(excluding areas 1/2 acre zoning or denser)¹³ (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.

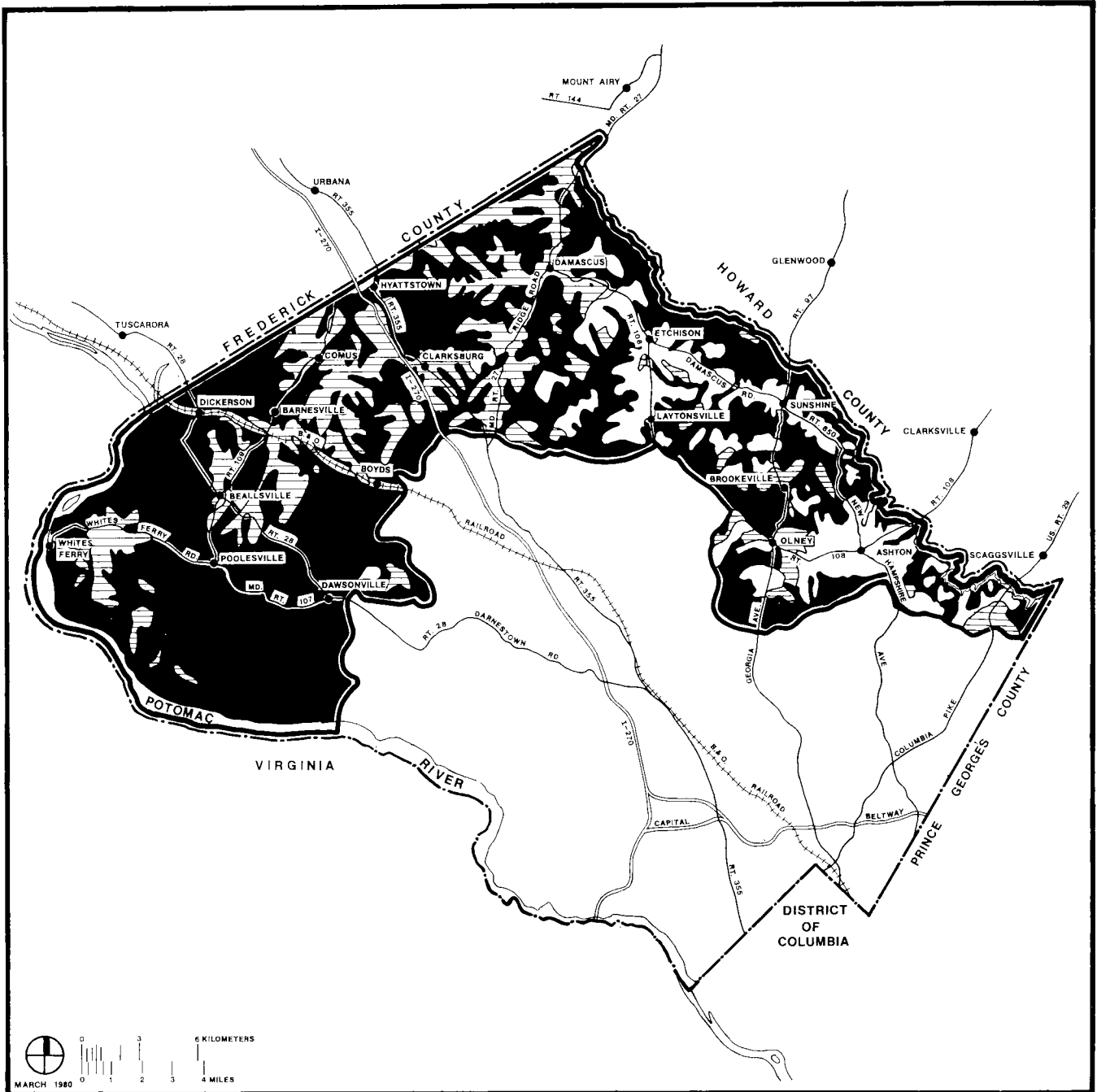
¹² Based upon 1977 Census Update Survey, average household size of 3.48 in the Rural Zone, 2 percent vacancy rate.

¹³ Areas with higher than 1/2 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

Legend:

-  Montgomery County Boundary
-  Study Area Boundary
-  Few Limitations for Septic Systems
-  Moderate Limitations for Septic Systems
-  Severe Limitations for Septic Systems



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

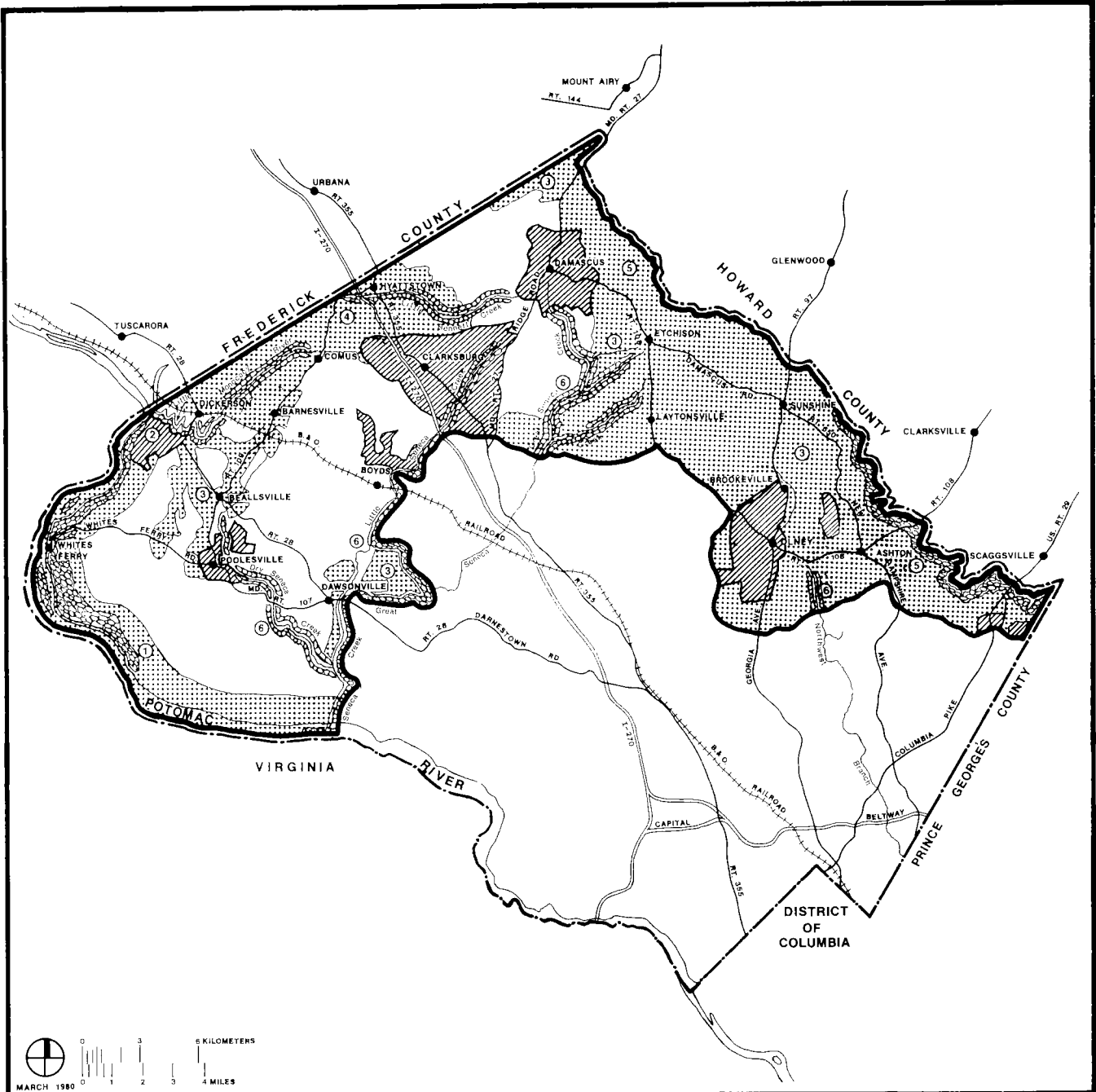
IDENTIFIED CRITICAL AREAS

- 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.

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.

<u>Size Range of Farm Parcels* In Acres</u> ¹⁶	<u>Total Acreage Within Size Range</u>	<u>Average Within Size Range</u>	<u>Approximate No. of Parcels</u>
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
<u>Total County</u>	<u>137,000 acres</u>	<u>58 acres</u> Average Size	<u>2,400 parcels</u>

* 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





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.

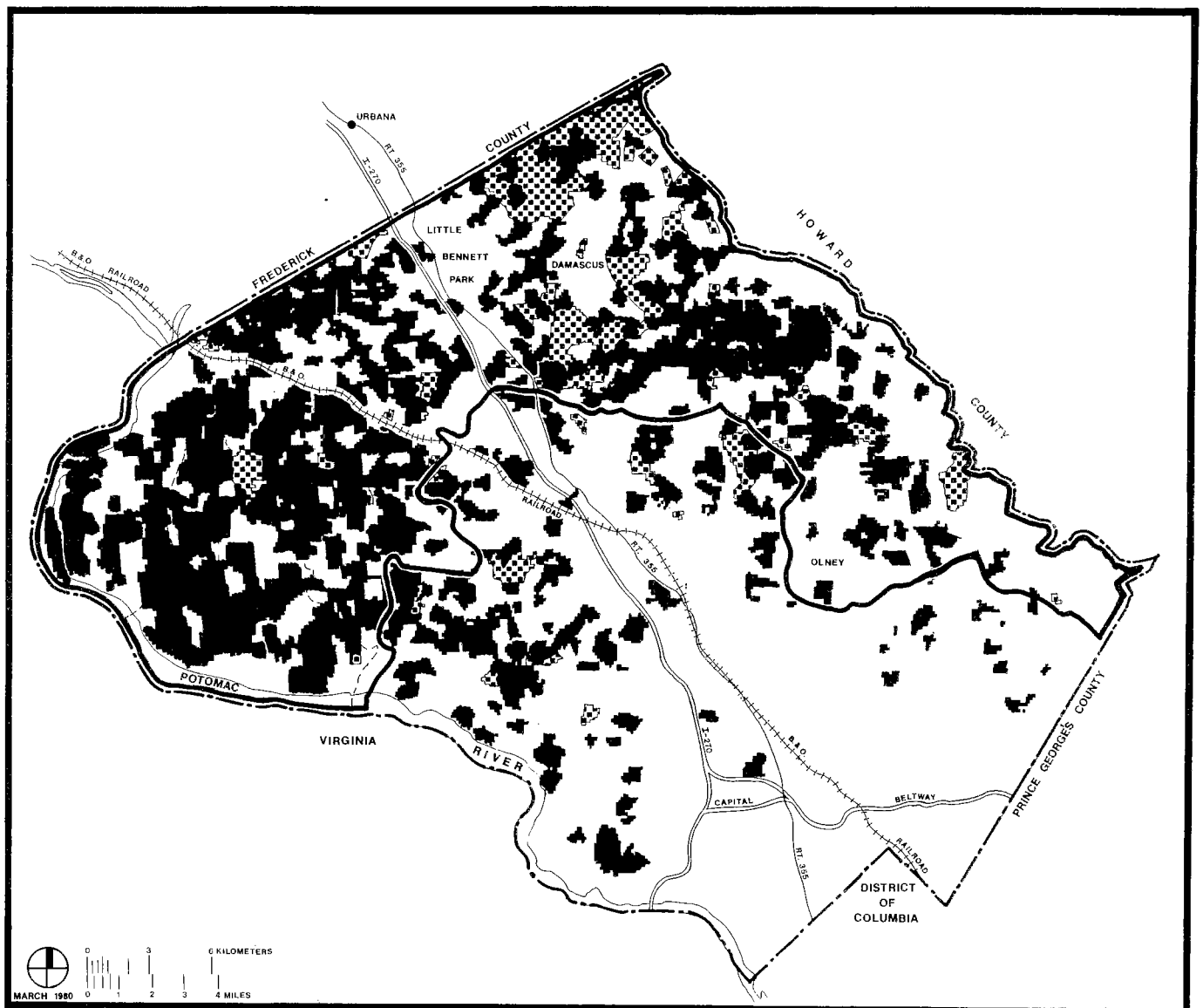
GENERALIZED WORKING FARM MAP

(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

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 threatened, 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.





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.

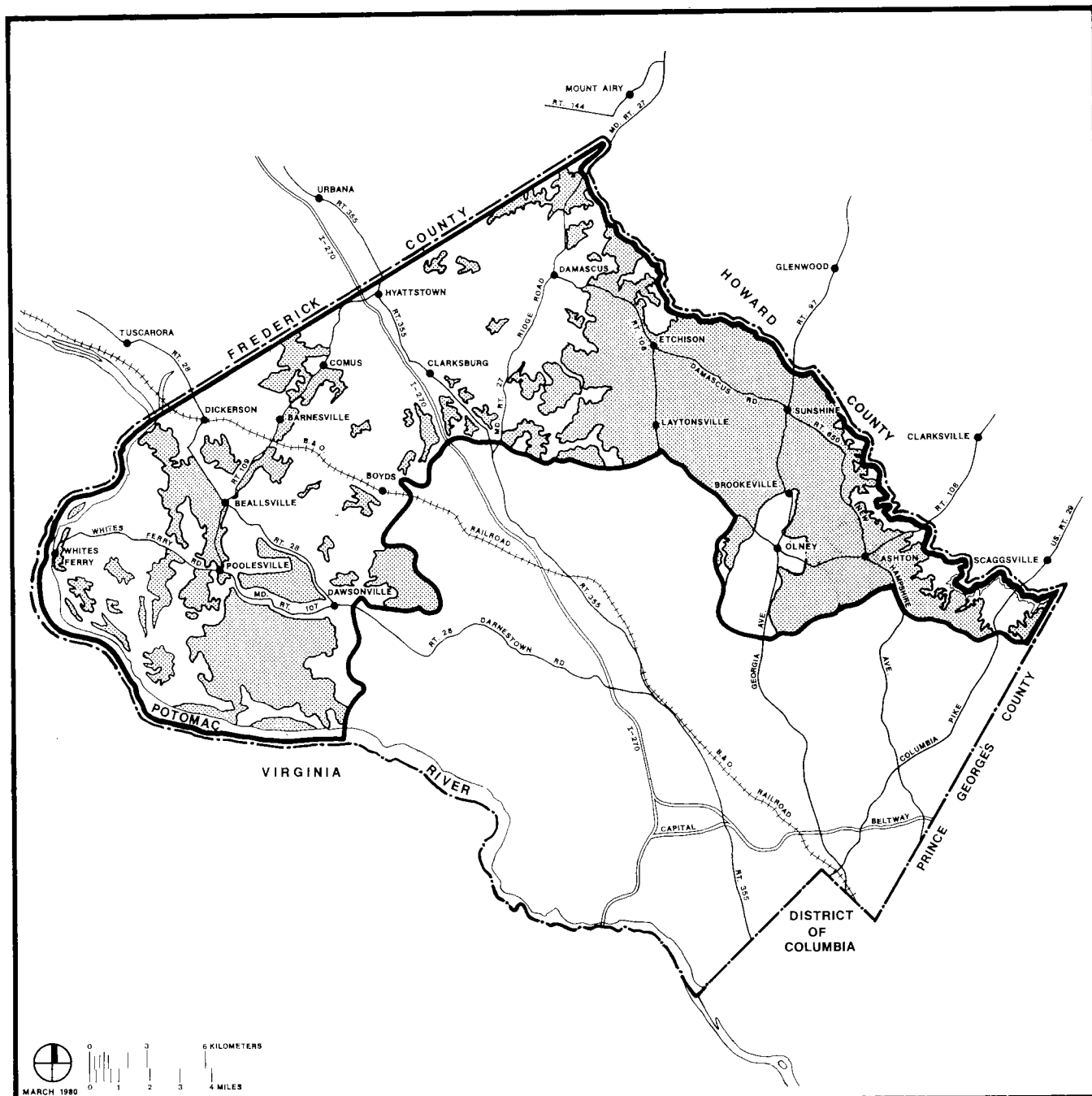
25 As reported in the Land Use Planning Report, published by Business Publishers, January 21, 1980, page 20.

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