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# GENERAL PLAN ELEMENTS



# GENERAL PLAN ELEMENTS MONTGOMERY COUNTY

DECEMBER 1969

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THE MARYLAND – NATIONAL CAPITAL PARK AND PLANNING COMMISSION

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LAND USE ELEMENT

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## I. INTRODUCTION

Montgomery County has been experiencing a population growth rate significantly higher than projected in the 1964 General Plan. The dynamic economy of the metropolitan area has been significantly responsible. In turn, a significant increase in service employment has resulted from the population growth. This increased rate of growth has made it more difficult to provide the various necessary community facilities and parks at the appropriate time and place. Thus a loss of open space and agricultural land is occurring.

Much of the residential development in Montgomery County occurred without a firm public policy to provide guidance, cohesion and structure. The results of this have been sprawling, single-family subdivisions with the higher density occurring primarily on by-passed tracts of land rather than in planned locations. Fortunately, this situation has been improving because the public officials believe that a continuation of sprawl is not the type of development for the best economic, social and physical interests of the County.

Employment areas have more stringent locational requirements than residential development in terms of accessibility to transportation facilities and environmental impact on surrounding areas. For this reason some employment areas have been located with respect to these planning principles. Obviously, this has not been true in all situations. Harmful effects on surrounding areas have resulted from the mislocation of employment areas. Some employment areas are poorly located in terms of accessibility; some cause serious congestion on the highways. As with residential, public officials realize the problems and are moving to ameliorate them.

Community facilities have become more inadequate as the suburban area continues to expand. The reasons have been inadequate planning in the initial stages of community development and the lack of phasing of public facility development. In many areas where development has occurred before planning was initiated, community facilities were not properly integrated in the design of the community. Instead, the facilities are either extremities of development and become inconvenient for access to community residents, or they may be built within a community on a parcel of land by-passed by development and is probably undersized or has access problems. This process of community facility development has been recognized as a problem and corrected in several ways.

The open space system as depicted in the "Wedges and Corridors" plan has met head-on with the urbanization pattern extending further out from the District of Columbia. While the war has not been lost, many individual battles have occurred resulting in a retreating open space system. The background report describes the functions of the open space system and indicate which functions are succeeding, which functions are not succeeding and which are in need of strengthening.

Various basic critical issues have been identified concerning land use within the County. The overall land use pattern, the intensity of development, the location of development, the types of development, and the staging of development and public facilities are discussed in the basic critical issues.

Not until major development policy decisions have been made with related objectives will some of the basic critical issues be answered with positive policy statements. The selection of a land development policy will be based on five land use concepts (as reflected by population and employment distribution) which were tested in conjunction with the transportation network. These land use concepts include the General Plan and Concepts A, B and C with the projected 1990 population and employment and the General Plan with the population and employment holding capacity. Concept A was primarily a reduction of the projected population and employment in the 70-S corridor with a new town at Norwood. The theory tested in Concept B was Dispersed Villages. These were located at Norwood, in the Goshen-Woodfield Planning Area and in the Darnstown-Travilah area with an employment center in the Rock Creek Planning Area. Concept C test involved an increase of the projected 1990 population and employment in the Germantown Planning Area, the Gaithersburg Vicinity Planning Area and along Route 29 primarily in the Fairland-Beltsville Planning Area.

The other major concern was an assessment of the goals, objectives and guidelines of the 1964 General Plan. As a result, a new goal, objectives and guidelines were recommended where necessary and those from the General Plan were retained where they still applied. These policy statements are intended to serve as planning principles to be followed by the Planning Board and the District Council when involved in the decision-making process. The Policy Statements cover: (1) General, (2) Living Areas, (3) Employment Areas, (4) Community Facilities, and (5) Agriculture, Parks, Recreation and Open Space.



GENERAL PLAN AS AMENDED

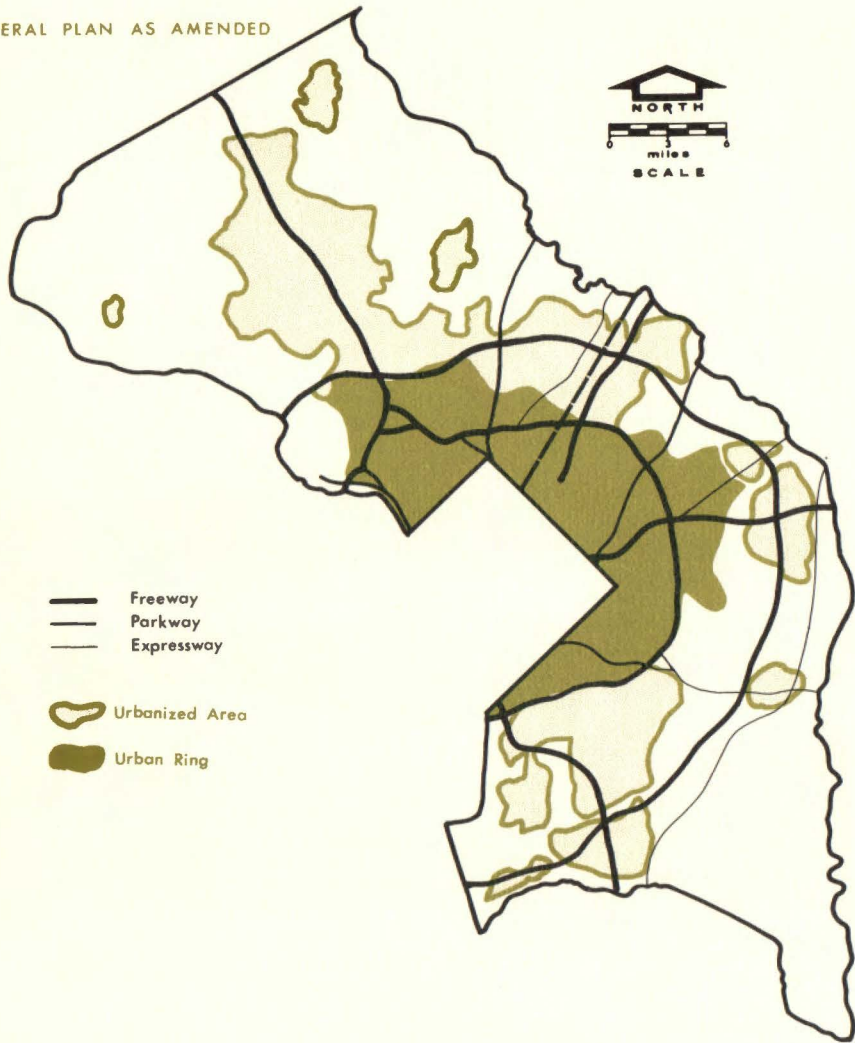


FIGURE 1

CONCEPT PLAN 'A'

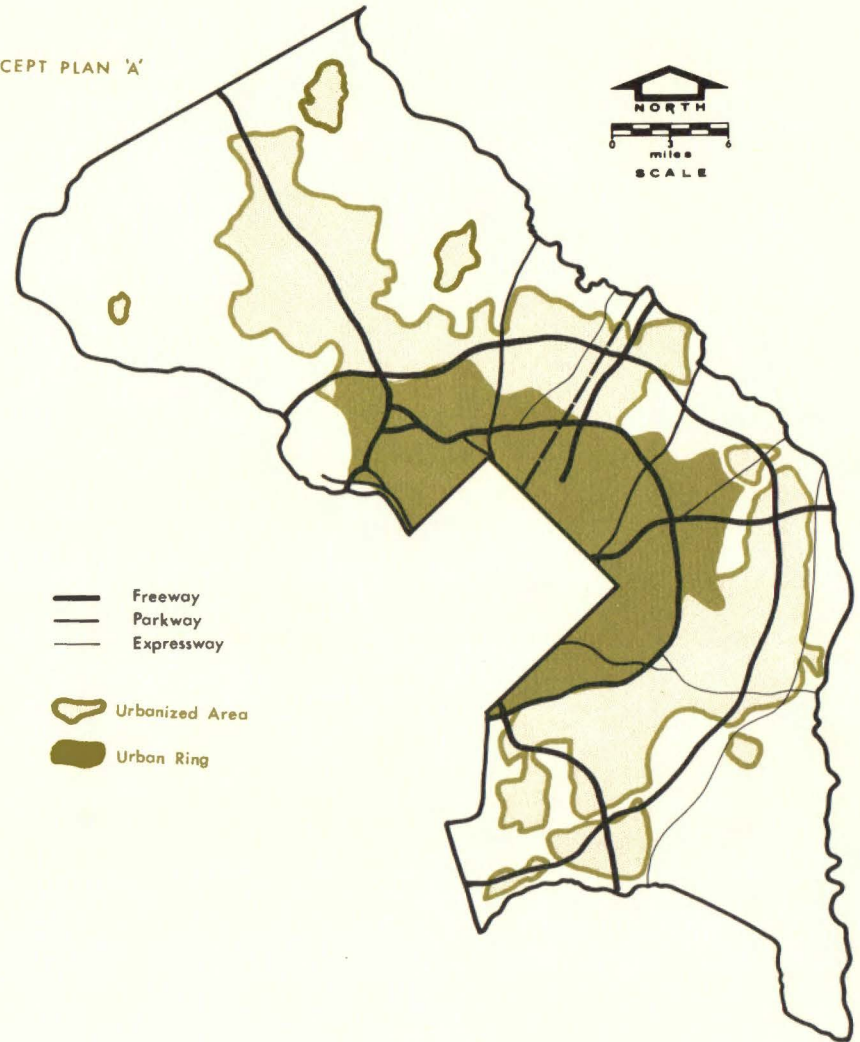


FIGURE 2

CONCEPT PLAN 'B'

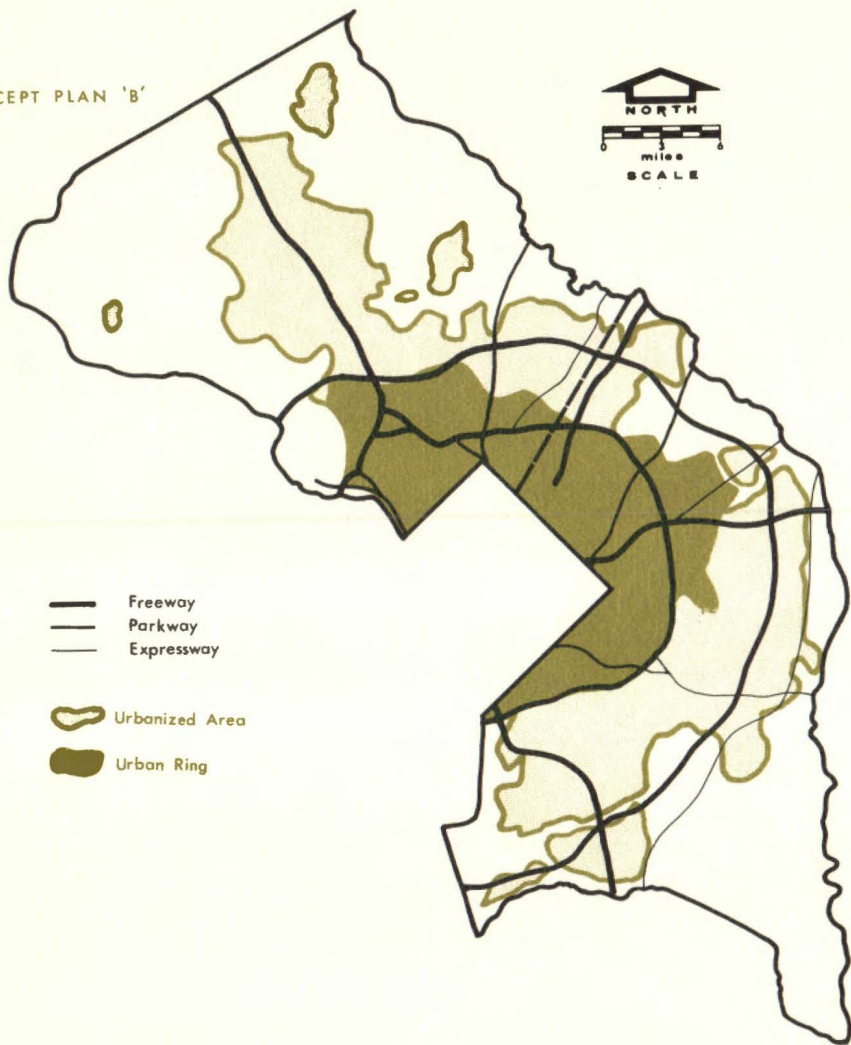


FIGURE 3

CONCEPT PLAN 'C'

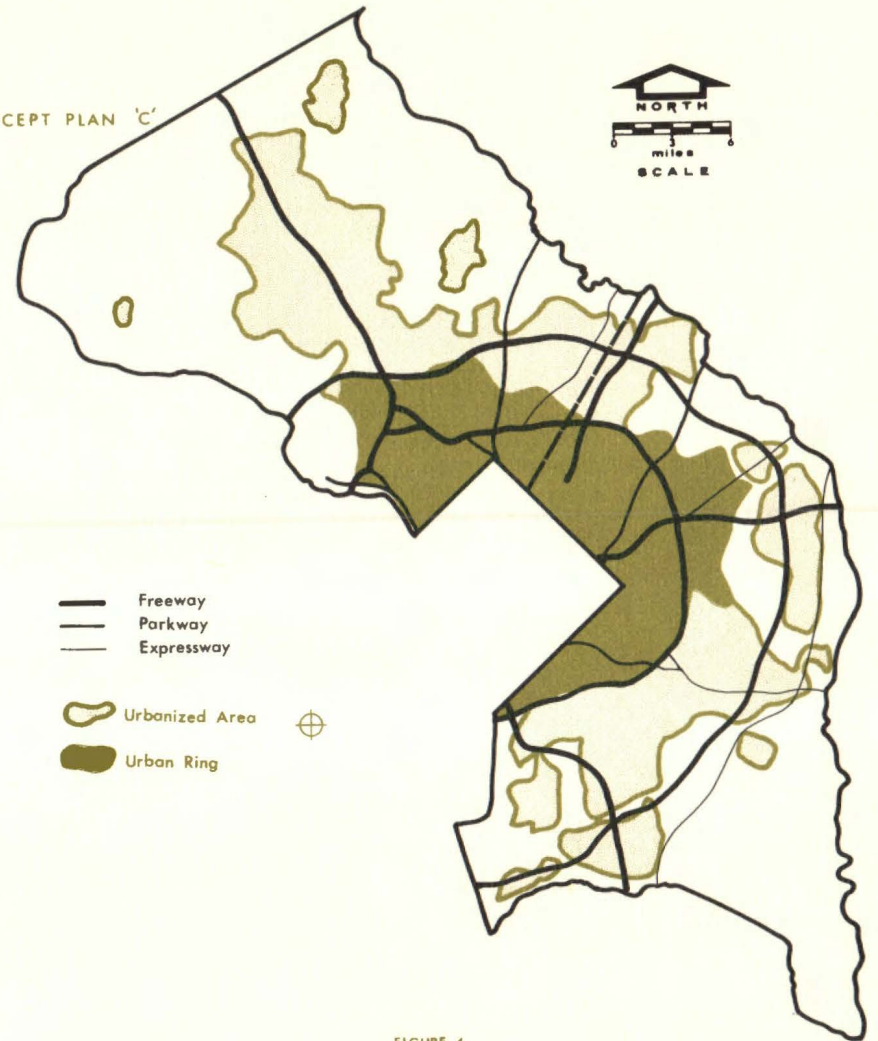


FIGURE 4

## II. BASIC CRITICAL ISSUES

The basic critical issues facing Montgomery County in 1969 with reference to the Land Use Element of the General Plan are:

DETERMINATION OF DEVELOPMENT POLICY CONCERNING THE LOCATION, NUMBER AND GEOGRAPHIC LIMITS OF THE CORRIDORS.

### I-70S Corridor

The problem in the I-70S corridor is the relationship between the projected population and employment and the public facilities necessary to adequately accommodate the projected growth. The public facilities are primarily I-70S itself and the Potomac Interceptor Sewer. Both have a limited capacity, and neither was designed to serve only Montgomery County.

Given these significant limitations to accommodate the growth, alternative location or locations must be considered or incur the expense of increasing the capacities of these two public facilities. One alternative would be to establish a significantly greater magnitude of population and employment growth in the upper Georgia Avenue area than envisioned in the General Plan. Another alternative would be to provide for more growth in the I-95 corridor than projected.

Rail rapid transit was not proposed for Georgia Avenue in the General Plan. However, the adopted Metro System proposes transit as far north as Glenmont by 1980. The potential impact of this facility on the Georgia Avenue corridor cannot be realistically ignored. A study done for the Council of Governments shows that the Georgia Avenue area will have much better accessibility under the adopted Metro System than would have been available under the General Plan proposals.

The upper Georgia Avenue area is part of the extensive wedge area proposed by the 1964 General plan. Should it become necessary to provide for urban densities in this area, planning must proceed development to avoid sprawl. Part of this area lies within the Patuxent River Watershed. Being one of the cleaner rivers in Maryland, urban development must be prohibited in the Watershed if this supplemental water supply and recreation area is to be properly protected.

### I-95 Corridor

The question in the I-95 corridor is interregional. With four major radials (Route 29 in Montgomery County, I-95, Route 1, and the Baltimore-Washington Parkway) connecting the Washington and Baltimore metropolitan areas within this corridor, a significant potential exists for development. Although identified as the I-95 corridor with the proposed major development at Fairland-Beltsville, the corridor, because of its four major highways, has an impact extending on the east to the Agricultural Research Center and on the west to the proposed Northern Parkway. Thus, a wider area is potentially subject to more intensive development than envisioned on the General Plan. Much of the corridor, especially that area extending from the Beltsville Airport east of the Baltimore-Washington Parkway to New Hampshire Avenue has vacant land within it. With the drainage pattern in generally the same direction as the radials, development and the staging of public facilities can proceed in harmony.

### DETERMINATION OF CORRIDOR DEVELOPMENT POTENTIAL

The amount of population and employment that can be accommodated in the various corridors is not unlimited. Transportation facilities, sewers and soils present restrictions. Overcrowding of transportation facilities has been demonstrated in the Bi-County Transportation Study. With an equivalent population capacity of 172,500, the Potomac Interceptor Sewer, provided no relief sewer is made available, obviously presents a restriction on growth of the I-70S corridor. A drainage area of 176 square miles or 36% of the County is served by this sewerage facility.

A significant part of the I-95 corridor has soils with severe limitations for urban development in addition to some soils with moderate limitations. Georgia Avenue and the I-70S corridor have few areas with soils with severe or moderate limitations for urban development.

### CORRIDOR DEVELOPMENT PRIORITIES

Corridor development priorities can be determined by the County Council if it wishes to exercise its prerogative to determine when, where and what types of development should occur. Several administrative tools along with the provision of the necessary public facilities to support urban growth are available to guide this growth in accordance with public policy. If development beyond the Urban Ring is to be channeled along the

corridors and within a particular time-frame, a public policy reflecting this should be formulated. Such a policy would provide the private sector a guide for future favorable action on zoning and subdivision requests. It would also indicate when public facilities should be made available by various public agencies. However, whether one corridor should develop more rapidly than another, depends in part on the ability of the County to finance the necessary public facilities. The economic growth of the Metropolitan Area reflected in new jobs and increasing population also strongly influences public policy on how and where to accommodate the growth. Should the magnitude of the economic growth become greater than the County's ability to finance adequate public facilities, the growth in population and employment would not cease, but it would be at a slower rate.

#### CORRIDOR CITY: TOTAL SELF-SUFFICIENCY VERSUS PARTIAL SELF-SUFFICIENCY

An important concept of the corridor city is to provide employment for a significant number of the people who live within its boundaries. By achieving this, a smaller investment would suffice for constructing highways because fewer people will be commuting to work. The concept of self-sufficiency also applies to shopping facilities and cultural amenities. However, it is unrealistic to assume that any corridor city will be 100% self-sufficient in terms of employment, shopping facilities or cultural amenities.

Studies have shown that when the population reaches approximately 125,000 in corridor cities, 40% of the trips are to points beyond the city. Attempting to reach self-sufficiency is in conflict with the concept of rapid transit. In order to have an economically feasible rapid transit system, a dominant central core is mandatory to attract a sufficient number of riders.

#### FUNCTION OF THE OUTER BELT FREEWAY

As with the Capital Beltway, the proposed Outer Belt will primarily carry intraregional traffic. The alignment proposed by the General Plan, except for the section through the Potomac area, lies within an urbanized or urbanizing area. Traversing an urbanized area and having interchanges with the major radial highways will not only result in large volumes of local traffic but in generating pressures for intensive development as were generated by the Capital Beltway.

The primary function of this facility is to be a traffic carrier. From an economic standpoint, it is desirable sometimes

to utilize a public facility for more than one purpose. In fact, the Dispersed Villages Concept (Concept B) was a test of this idea. Population and employment concentrations greater than proposed in the General Plan were located to take advantage of the traffic-carrying capacity of the Outer Belt and a proposed expressway. The results of this test did not provide a satisfactory solution to projected traffic problems.

#### URBAN RING ACTIVITY CENTER CONCEPT VERSUS SHOPPING CENTER CONCEPT

As the population and economy of the Metropolitan Area expanded, urban development spread across the District Line into the Region. This growth occurred without a firm public policy to guide the development. Thus, the Urban Ring has no determinate form; it is without a developed structure; it does not contain any activity centers as the corridor city Town Centers are envisioned. Time must pass before the Urban Ring can be shaped into any structure resembling the corridor city structure. A step in this direction can be made by identifying existing regional activity centers and any other areas which should be transformed into a complete multi-purpose activity center providing shopping facilities, employment, high-density residential development, social, cultural and educational facilities within a relatively small area.

#### PROPER UTILIZATION OF URBAN RING RESIDUAL POTENTIAL

As the Urban Ring grew without a firm public policy, various parcels of land were bypassed and remain dormant. These vacant parcels are scattered throughout the Urban Ring. All the various public facilities have been made available to these parcels, but the public is receiving no benefits from these parcels in terms of an equitable tax return. With the character of the Urban Ring now changing in some locations from suburban to urban, some parcels become underdeveloped. Thus, it is necessary to derive policies to achieve as rapid as possible the proper utilization of the vacant land and a conversion of suburbia to an urban structure.

#### LIMITS OF THE URBAN RING

In Montgomery County the Urban Ring as proposed on the General Plan extends from the Naval Ordnance Laboratory, westward to where the proposed Outer Belt crosses Georgia Avenue. Then it follows the proposed Outer Belt into the Potomac area where it turns southward just to the west of the Capital Beltway and extends to the Potomac River. In testing three land use concepts (as reflected by the population and employment distribution) in conjunction with the transportation network, the Urban Ring should not shift in Montgomery County.

## SELF-SUFFICIENCY RELATIONSHIP OF THE COUNTY TO THE METROPOLITAN AREA

Montgomery County will never achieve 100% self-sufficiency. The largest single employer in central Washington is the federal government. Because of the federal government's magnitude, a significant number of additional jobs are created. Many are related directly to the government. Thus, central Washington is the place of employment for a significant number of Montgomery County residents. Some County residents also work in Prince George's County and the Virginia suburbs.

Over the years, the federal government has been relocating some agencies in the County. Because of this, some firms which depend to a substantial degree on the federal government for contracts, have located in the County. Population growth is also spurred, which generates additional employment not related to the government. This results in a greater degree of self-sufficiency.

As new roads are constructed, existing roads improved and the rail rapid transit constructed, commuting should become easier between all the political jurisdictions in the Metropolitan Area. Thus, it would become less important for an individual to locate in close proximity to his place of employment.

With the economy of the Washington Metropolitan Area continuing to expand and projected to continue expanding, the political jurisdictions are in competition with one another for their share of the growth. Thus, how self-sufficient the County becomes, will depend on how efficient the County is in attracting part of the projected employment.

## PUBLIC/PRIVATE SECTOR RELATIONSHIPS

This relationship can take three forms: 1) laissez-faire, 2) strict public control, or 3) appropriate balance between these two. Laissez-faire would not result in the type of development and environment which the public wants and deserves. Strict public control is contrary to our form of government by stifling initiative and imagination, and such control does not assure the type of development and environment that the public wants. The third alternative - appropriate balance (a compromise between laissez-faire and strict public control) is generally the approach being used today to guide development. However, even with our present administrative tools, the types of development proposed in a plan do not always occur; the desired timing of development is not always achieved nor is the environment enhanced by the development. Therefore, changes are needed in the appropriate balance approach. Inducements and incentives should be offered to the private sector to achieve general public objectives.

## THE STRUCTURE AND FUNCTION OF THE WEDGE AREA

The structure of an Open Space system will be determined by the degree of importance attached to each of the functions. There is no one and only purpose for the open space areas, rather a variety of necessary and desirable uses. Primary functions of the Open Space system should include preservation of the identities of individual communities, provisions for "the change of pace" and recreational opportunities and the maintenance of a more pleasing and healthful environment. Before an open space system can be developed, a determination must be made as to the type of uses, the quantity of land that is necessary or desirable for each use, and the location of these uses with the open space area.

## PRIORITIES FOR WEDGE AREA LAND RESERVED FOR FUTURE USE DETERMINATION

Priorities should be set for the development of the particular segments of the wedge area which are to be reserved for future use determination. These particular reserve areas may be used to absorb future growth only when and if development needs exceed those projected by the General Plan; otherwise, they should remain intact as important elements of the open space system. The priorities established should recognize three basic areas of concern:

1. Land in the wedge area currently under development pressure.
2. The permanent Open Space System.
3. Land reserved for final use determination by a future generation of planners.

## THE VIABILITY OF AGRICULTURE IN THE COUNTY

Rising land prices serve to support and reflect speculation practices of farm and non-farm interests. As the value of the land for non-agricultural purposes exceeds the value of the particular site for farming, or as owners become less dependent on farming as a primary source of income, productivity may decline. Declining traditional "cash crops" and the decline in fresh market crops from 1964 on, tend to indicate a decreasing economic dependence on agriculture. With the decline of fresh market produce, some question may arise regarding the relationship between agriculture in the County, and the advancing urban area. The increase in production of the traditionally non-cash crops of hay and grain, raise additional questions with respect to the future economic viability of agriculture in the County.

## THE PRESERVATION OF RURAL AREAS IN THE COUNTY

From 1956 until recently, the major premise upon which Maryland tax policy relating to agriculture has been based was that land actively used in agriculture must be assessed solely on its agricultural value. The criteria established for assessing farmland were rendered meaningless in the absence of a precise definition of agricultural use. Further, under the Maryland taxing structure, in addition to the problem of establishing "agricultural value", the assessor limits his considerations to the value of the acreage used as farmlands by ignoring surrounding influences. Public costs resulting from ill-timed development become ever more apparent, and as a result, pressures to become more selective in the preservation of rural areas and uses increase. However, the soil for agriculture is also best suited for development. This generally describes the source of continuing conflicts of developing urban areas with surrounding areas. With a clearly defined pattern of development, land suitable for agriculture and desirable in its open state may be delineated. Such land should be eligible for tax considerations and other devices to help insure the open character of the area.

The General Plan deals with agriculture as a part of what is referred to as the Rural Pattern. As a part of the Rural Pattern, the purposes, among others, of agriculture in the General Plan are: to help mold the Urban Pattern; to provide large open spaces; and a favorable rural environment. Notably, however, Master Plans published subsequent to January 1964 as amendments to the General Plan, contain virtually no regionally significant references to agriculture. The Preliminary Master Plan for the Rock Creek Planning Area, an area which has agriculture as its predominant land use, points out that this is not the prospect for the future. The continuing significance of agriculture and the status of rural areas as a whole may then be in question of the Master Plan level as well as the Regional level.

## PHASING--PUBLIC FACILITIES VERSUS URBAN GROWTH

In many areas of Montgomery County the demand and need for public facilities has outstripped the supply. In newly developing communities, development has leaped ahead of school, fire, police, library and hospital services causing inefficiencies and additional expenses to both the public and private sectors. In older communities once adequately served by these facilities, new growth at greater densities has replaced older developments and is taxing

the once adequate facilities, creating new economic and environmental hardships for the communities. A concerted effort must be made to bring into phase the development of public facilities and the growing County population. The public agencies, citizens and developers must cooperate to a greater extent in the planning process to bring about a balanced growth pattern. Government agencies must coordinate their activities to a greater degree, to insure that the developing communities, as well as the older redeveloping communities, have adequate public facilities. New techniques and approaches to this problem, such as the Capital Improvements Program, are now becoming available and should be incorporated within the County development programs as they become workable.

### Basic Land Use Critical Issues Related To Other General Plan Elements

#### CIRCULATION ELEMENT

##### DUAL RESPONSIBILITY IN TRANSPORTATION AND LAND USE PLANNING AND IMPLEMENTATION

With Montgomery County being dependent on the State and Federal governments for the construction and improvement of a number of important highways, it becomes difficult for the County to develop meaningful land-use policies relating to the location, types of use and staging of development.

##### CONFLICT BETWEEN DEMANDS FOR GREATER MOBILITY AND PRESERVATION OF ESTABLISHED NEIGHBORHOODS

Any transportation project - be it a new freeway, a new transit line or the widening of an existing road - creates a conflict between those who demand greater mobility and those who do not want any intrusions that would result in a deterioration of the livability of their neighborhoods.

##### FUNCTIONAL AND STAGING OF CORRIDOR CITIES

The conceptual functioning of the corridor cities as a place with a greater degree of employment self-sufficiency than the Urban Ring could result in a conflict with the concept of rail rapid transit. In order for the rail transit to be economically feasible, it must depend on riders from the corridor cities to central Washington. Attempts should be made to coordinate and in fact guide development through the staging of transportation facilities.

## ENVIRONMENTAL ELEMENT

### STAGING OF WATER AND SEWERAGE SERVICE

Urban development cannot occur without the proper water and sewerage service. Therefore, it is necessary to use the extension of water and sewer lines as a staging device to guide development in a desired land use pattern. Of course, the extension of water and sewer lines must be coordinated with the provision of other public facilities in the Capital Improvement Program.

### NOISE POLLUTION AND LAND USE PLANNING

Freeways, airports, railroads, some industrial areas and other sources of objectionable noises need to be buffered from the surrounding community.

## HOUSING ELEMENT

### PROVIDE FOR GREATER QUALITY, VARIETY AND CHOICE IN HOUSING

Land use planning policies and proposals need to be developed that would encourage and guide the private market to provide housing for a wide economic spectrum.

### RELATE HOUSING CHOICES TO EMPLOYMENT OPPORTUNITIES

Every employer has job opportunities ranging from custodial to top management with a corresponding range in pay scales. With the housing supply being concentrated upward from an upper-middle income grouping, the possibility for living within easy commuting distance of work is almost impossible. Therefore, land use plans should contain policies and proposals for locating housing of various densities, types and cost in proximity in most all places of employment.

## CONSERVATION ELEMENT

### INTEGRATION OF NATURE WITH DEVELOPMENT

The development of urban and suburban areas is resulting in sprawling urbanization with little or no regard for the retention of valuable natural areas. The situation is most crucial in central business districts where current construction provides a monotonous sea of unbroken concrete and brick. Natural areas must be retained in future developments and incorporated into existing urban centers to provide a more diversified and healthful living environment.

## PRESERVATION OF VALUABLE NATURAL AREAS

Wetlands, wildlife, forests, botanical and other valuable ecological areas, are rapidly being destroyed by urbanization. These important natural areas, most of which are located within stream valleys, once removed, will be lost forever. Efforts to preserve these valuable, natural areas must be made within the context of a better environment for the residents of the County. The open space system can and should incorporate these natural assets within its total structure. These natural areas will contribute significantly to the various functions of the wedge area.

### III. DISCUSSION OF POLICY STATEMENTS

#### POLICY STATEMENTS OF THE 1964 GENERAL PLAN

##### GOALS

1. Use land efficiently.

This goal has been partially implemented in the past and is becoming increasingly more accomplished as new implementation tools and incentives become available. This goal will apply as long as there is development.

2. Encourage an orderly conversion of undeveloped land to urban use.

The preparation of area master plans, sectional zoning map amendments, review of the WSSC Five Year Sewerage and Water Program and now the Ten Year Sewerage and Water Plans are means which are used to implement this goal.

3. Maintain large open spaces.

A threatened goal, although presently these open spaces do exist outside the existing suburban areas. This goal will always be applicable.

4. Expand opportunities for outdoor recreation.

A continuing process of park planning, acquisition, and development is insuring the accomplishment of this goal which will always be applicable. However, this goal should be expanded.

5. Encourage greater variety of living environments by new towns and residential clusters.

The Town-Sector and Planned Neighborhood Zones and the Cluster provisions and the site plan review requirements in some zones in Montgomery County are steps in this direction. It would appear that additional tools could be derived to further this goal which is still applicable.

6. Mold the urban pattern into an efficient and pleasant one.

The adopted General Plan is designed to accomplish this goal which would always be applicable.

7. Invite imaginative urban design; Greenbelts - Cultural Base.

There has been some implementation--the Greenbelt around Germantown is being acquired, utility wires in newly developed areas are being placed underground and Montgomery County has a new sign ordinance. This goal still applies and could also be expanded.

8. The projection of past trends shows the gigantic needs for land to be put to new uses. The primary purpose of the General Plan is to guide these new uses into an efficient, pleasant, and workable pattern from which the public at large and the individuals that make it up will gain the greatest possible satisfaction.

Evidence of partial implementation of this goal exists. This goal will always apply.

##### GENERAL OBJECTIVES

1. Land should be treated as one of our most precious possessions, using efficiently what we need for accommodating expected urban growth, and conserving the rest for the unforeseeable future.

This objective has not been seriously implemented but will always be applicable.

2. Public plans must be realistic in providing enough land for each type of urban development to meet the demands of urban growth. But at the same time, public policy should not be used to inflate rural land prices artificially by extending urban zoning beyond realistic estimates of development needs.

Some success at implementing this objective has been made. It continues to apply.



GENERAL GUIDELINES

1. Adopt detailed master plans for local areas in accordance with the General Plan.

This objective has been continually implemented, although to various degrees in each master plan area. This guideline will remain applicable as long as master plans are prepared in the present detail.

2. Enact new conservation, apartment, townhouse, shopping center, and core commercial zones.

The only implementation of this guideline has been the townhouse zone. These zones continue to be part of the necessary tools for effective plan implementation.

3. Apply zoning in conformance with detailed master plans in step with need.

There are numerous examples of applying zoning in conformance with detailed master plans, but there are also probably examples where it was not in step with need. As long as master plans are prepared in the present detail, this guideline will apply.

4. Improve special exception procedures under the zoning ordinance to help assure better urban design.

This guideline has been only partially implemented. Attempts to fully implement this guideline should be continued.

5. Appoint a Community Appearance Advisory Committee to act as a community conscience for the Regional District, spurring good public and private design.

This guideline has not been implemented although a Sign Review Committee has been organized. This guideline is still applicable.

6. Maintain strict review of applications for all rezonings, subdivisions of land, building permits, and zoning site-plan approvals in order to help assure conformance with master plans and general regulations.

This guideline is being implemented by staff and Planning Commission review of rezonings, subdivisions, building permits and site plan approvals. Implementation should be continued.

7. ACTION: Coordinate zoning established by the pattern of the General Plan.

This guideline has been followed by the Planning Board as best as possible. Implementation should be continued.

8. ACTION: Use sectional map amendments to keep zoning in step with the urban development recommended by the General Plan.

This technique has been used in the Olney, Damascus, and Potomac areas. This guideline would continue to be applicable as long as the detailed master plans are prepared.

9. ACTION: Amend the Regional District Act to require two-thirds majority of a District Council to overrule the zoning recommendations of a municipality or the recommendations of a Planning Board in accordance with adopted master plans.

This guideline has been implemented.

10. ACTION: Establish administrative procedures to more fully recognize the relationship of zoning to assessed values of real estate.

According to the Assessment Office, this has been implemented. Application should be continued.

11. ACTION: Explore imaginative uses of government programs and procedures related to community development, and establish those that show promise of carrying out the General Plan.

This has not been implemented other than possibly the CHOICE Program. This guideline is still applicable.

### Living Areas

#### OBJECTIVES

1. Large populations contain wide varieties of people, some young, some old, some married and some with children and some without, some rich and some poor. These various types of people require different living environments. Provisions must be made for the requirements of all segments of the population and the changing ratios between them.

This objective has received limited implementation. Housing for the poor is being provided in greater quantities than previously. Also, special housing for the elderly poor is being provided. This objective still applies.

2. "New Towns" staged in the corridor plan afford the greatest opportunity to create in a concentrated, efficient and economical manner a range of choice of living environments.

Partial implementation of this objective has occurred with adoption of the Germantown and Fairland-Beltsville Plans. This still applies in the present adopted General Plan.

3. Imaginative design can create an identity for each community, a source of pride for the residents of the community, and establish competition between areas that fosters an appreciation for the betterment of all communities.

Few examples exist of this objective on a community-wide scale. It still applies.

2. ACTION: Clarify the wording of subdivision regulations in the County, indicating the intention and ability to deny premature subdivisions.

This guideline has not been implemented. Steps should be taken to accomplish this important plan implementation device.

3. ACTION: Increase the use of residential estate zones.

This guideline has not been implemented, although the two-acre and one-acre zones have been used in Montgomery County. Implementation would assist in the protection of the wedge areas.

4. Another facility to be found at the edge of corridor cities is the industrial park with its campus-like atmosphere.

This statement is included in the corridor city plans that have been adopted or are in preliminary form.

5. ACTION: (1) Exclude residences from all existing commercial and industrial zones. (2) Study the techniques of layered zoning and greater specialization of uses in commercial and industrial zones. (3) Prepare and enact new zones to accommodate complex business centers and the cores of new corridor cities.

The commercial zones allow residences. However, the R-CBD zoned in Montgomery County is an attempt to prohibit residential use in the C-2 zone but allow high density in the CBD. All residences are prohibited in the industrial zones except in connection with agricultural uses, or caretakers or watchmen and their families. Nothing has been done on layered zoning. No new zones have been enacted to accommodate complex business centers and the cores of new corridor cities. In order to properly fulfill the concept of town centers, a new zone is still applicable.

## Employment Areas

### OBJECTIVE

1. The growth of employment centers should closely parallel the growth of population.

There are examples where employment centers have not closely paralleled population growth. However, this objective is still applicable.

### GUIDELINES

1. The centers of new corridor cities are spaced about four miles apart so that they can grow large enough to support a full variety of commercial, cultural, and social services, and still not crowd too tightly against the next city.

The corridor city plans prepared to-date implement this guideline; it remains applicable.

2. In each new corridor city there will be a densely built but well-designed core in the center, with a rapid transit station under a pedestrian plaza. The tall buildings around the plaza will house shopping facilities, offices and apartments, all within easy walking distance. Urban parks, appropriate landscaping, and modern architecture will give a sense of spaciousness. Social, cultural, and educational activities will also be provided in each core so that the "downtown" area will have a vital function even after the workday is over.

These proposals are included in the adopted corridor city plans; they remain applicable.

## Public Facilities (except Water and Sewer)

### OBJECTIVE

1. Compact urban development, taking place in orderly stages, utilizes public investments in sewer and water lines, streets and highways, rapid transit, schools, parks, and other community facilities in the most efficient manner.

This objective has not been fully implemented in the past but will always be applicable.

2. Space for all community facilities must be found within the urban pattern, near the people they are to serve. Their sizes, locations, and functions need to be in direct proportion to the size of the community and type of residents.

This objective has been partially implemented, and continual attempts are being made to fully achieve the objective. This objective will continue to be valid and applicable.

### GUIDELINES

1. Improve procedures for preparing the reviewing long-range capital improvements budgets.

This guideline has been partially implemented by continually improving the preparation process for the Capital Improvements Program. This guideline will continue to be applicable.

2. Continue the preparation of plans for community facilities in the Regional District, based upon the corridor-wedge distribution of population.

This guideline is continually being implemented and will remain valid under the present adopted General Plan.

3. Improve capital budgeting for community facilities by  
--automatic data processing for land use and population figures  
--more thorough review by the Commission of individual capital budgets  
--a yearly capital improvements report combining all capital budgets in each County.

This guideline is being partially achieved with progress being made toward full implementation. This guideline will continue to be applicable.

4. Fees in lieu of dedication of public lands should be sought as a means of providing revenue for land acquisition without constantly increasing the burden on the taxpayer.

This guideline has been partially implemented by the Maryland State Legislature and local legislation is under consideration in Montgomery County. It is still applicable.

5. Require all public agencies to record their properties by plat through regular subdivision procedures.

This guideline has been accomplished to some substantial degree. Application should be continued.

6. Require that all public agencies and utilities submit plans for new facilities to the Planning Commission before an acquisition or construction project is undertaken.

This guideline has been partially implemented. Steps should be taken to ensure full implementation.

Agriculture, Open Space,  
Parks, and Recreation

OBJECTIVES

1. Maintain large amounts of clean open space, uninterrupted by scattered urban development.

This objective is not being sufficiently carried out. Although large amounts of open space are still available, it is becoming further and further away from the people it must serve. This is still applicable.

2. The phenomenal demand for outdoor recreation spurred on by rising living standards and increased leisure time, must be met by utilizing both private and public lands. Many active sports can be enjoyed in local parks and playgrounds within urbanized areas and even in family backyards, but hunting, fishing, camping, hiking, swimming, horseback riding, boating, water skiing and other outdoor sports require more

elbow room. Large expanses of water, shore fronts, forests and fields cannot be provided adequately within urban areas. Private property in the rural areas can meet a substantial part of the growing need for outdoor recreational facilities--to the profit of the private owners. Local and regional parks must fill the rest of the need. Government policy should support and encourage the use of both public and private lands in the Regional District for outdoor recreation.

Partial implementation has been accomplished but not nearly enough. This is still an applicable and necessary objective.

3. One of the concepts of design which lends imagination, integrity and identity to an area--whether it be a new town, a cluster development or an isolated existing community is the separation of uses by "greenbelts." These belts could range from rows of trees in a cluster to parkline greenbelts of sparsely used land delineating the shape of a new town.

Stream valley preservation has partially accomplished this objective. This objective is still applicable and needed, but some refinement may be necessary.

4. Provide and protect large open spaces for the "change of pace" and recreational opportunities needed by present and future generations.

This objective has been partially accomplished, but is applicable and needed. Refinements may be needed.

5. The public park acquisition program can be used at critical points to divide urban areas from rural.

This objective has been partially fulfilled. It is still very applicable, especially in areas of future suburban growth. Some refinements are needed.

6. In general, local parks, park schools, and youth centers will be in the urban communities where the people are; stream valley parks will be (as the name implies) where the major streams are; and regional parks will be where they can form a boundary between urban and rural environments.

This objective has been partially implemented and is continually being expanded. It is still applicable in most instances, but needs re-writing.

7. The rural zone should be the dominant zone in the open space wedges between the urban corridors.

This objective has not been implemented or adhered to. The statement may need revisions depending on the degree of applicability.

8. At the same time the park and open space acquisition program is a key element in separating urban and rural areas, encouraging rural uses to prosper and urban uses to cluster together efficiently. While many small parks and open spaces will be needed inside the urban areas to lend quality and convenience, most of the large parks and open spaces will be located at the edges of the urban pattern.

Present trends indicate implementation of this objective. The statement is still applicable and feasible.

9. Where possible, the best soils should be preserved for agricultural purposes.

Attempts have been made to implement this objective. The problem is usually the best agricultural soils are also the best soils for urban development. This objective is still applicable but should be more specifically refined.

10. Provide a favorable rural environment in which farming, mineral extraction, hunting, fishing and other natural resource activities can be carried on without disruption.

How well this objective is being implemented is questionable. This objective is still applicable.

11. Despite great national surpluses of food and a slowly declining agricultural acreage in the Regional District, profitable farming can and should continue to be one of the major land uses in the rural wedges between urban corridors.

Farming is occurring in the wedge areas but how much longer it will continue is debatable. This objective is still applicable under the present adopted General Plan.

#### GUIDELINES

1. Establish new tax policies relating land assessments to zoning, and extending preferential assessments to all open space uses of land.

This guideline has not been implemented to any significant degree, but is still applicable. Some refinements are needed.

2. Acquire additional parks.

This guideline is constantly being implemented and is still applicable. Some refinements are needed in terms of more specificity.

3. In order to assure their continuance and expansion in and near the metropolitan area where high land values discourage it, there will be a very definite need for the public to purchase recreational rights on private farm and forest lands as the Maryland Game and Inland Fish Commission is already doing.

This guideline has not been implemented, but is still very applicable. Some refinements are needed.

4. Use park acquisition to separate rural areas from urban areas.

This guideline has been partially fulfilled. It is still very applicable, especially in areas of new suburban growth. This statement needs refining and should be combined with other similar policy statements.

5. Purchase public recreation rights and scenic easements to expand open space beyond publicly owned land.

This guideline has been partially attempted but not implemented. The statement is becoming more and more applicable as land values increase.

6. Encourage private land owners in the rural area to provide recreational opportunities for the public under multiple use, income producing arrangements.

This guideline has not been implemented but is still very applicable.

7. Cooperate with and coordinate the numerous Federal, State, and local program for rural development, conservation, and open space acquisition.

This guideline is partially and continually being implemented. It is still applicable.

8. Coordinate the park acquisition program with the corridor-wedge form of development.

This guideline has been partially implemented and is still applicable under the present adopted General Plan.

9. Seek additional State and Federal matching funds for park acquisition.

This guideline has been continually implemented and is still applicable.

10. Keep park development in step with growing population.

This guideline has been continually implemented with substantial success. It is still very applicable.

11. There are only two ways in which encroachment on open spaces between the radial corridors can be prevented: the first is public acquisition of all land between the corridors; the second is to restrict land uses to low density, multiple-acre, rural ones. This first alternative is obviously both impossible and undesirable. Rural zoning, therefore, becomes a must.

This guideline has been partially implemented in Montgomery County. The statement is still very applicable.

12. ACTION: Enact a State law granting preferential tax treatment to those conservation and recreation uses of land which provide permanent open space.

There has not been implementation of this guideline in Montgomery County. It is still applicable but should be combined with other policy statements.

13. ACTION: (1) Explore legal means of regulating destructive large-scale clearing and grading of land. (2) Amend the Regional District Act to extend the reservation period to allow the Park and Planning Commission to initiate reservation plats.

Not much implementation action has taken place other than the proposed grading and filling laws. The guideline remains valid and applicable.

14. ACTION: Amend the Regional District Act to require fees in lieu of dedication when adequate dedication would be inappropriate.

This guideline has been partially implemented by the Maryland State Legislature and local legislation is under consideration in the County. The guideline becomes more valid and necessary as land values increase.

15. ACTION: Expand the park jurisdiction of the Commission to coincide with its planning jurisdiction.

This guideline has been accomplished in Montgomery County.

16. ACTION: Amend State legislation to allow the Commission to purchase partial rights to land.

This guideline has not been implemented. It does remain valid as long as the Commission retains an acquisition program.

17. Preserving rural incomes and encouraging farms to remain important providers of open space in the metropolitan scheme of things are legitimate justifications for preferential tax treatment of farm land.

This guideline has been partially implemented and is still applicable.

18. Estate zoning should be employed in "buffer" areas between the corridor cities and the natural resource wedges to provide a reasonable transition and reduce pressures for the continuation of urban zones beyond their optimum limits.

This guideline has not been implemented; without an estate zone it could not be implemented. It does remain applicable.

19. ACTION: Amend the State Agricultural Assessment Act to require rural or large lot residential zoning, in addition to agricultural use, on land receiving preferential tax treatment.

Rural or large lot residential zoning is not required for preferential tax treatment in the recently amended law, but the assessor is required to determine that the farm is in fact a bona fide farm. Therefore, this guideline is no longer applicable.

POLICY STATEMENTS OF THE AREA MASTER PLANS  
ADOPTED AS AMENDMENTS TO THE GENERAL PLAN

Area Master  
Plan

GOAL

1. If the purpose of planning is to provide a better living environment then one goal should stand out above all others. This is the goal of achieving "Quality" in every facet of community development.

Germantown

The achievement of "Quality" is improving but much remains to be achieved. This goal will always be applicable.

GENERAL OBJECTIVES

1. Overall density rather than rigid lot size regulations should be the major quantitative control. Application of this principle permits the use of the design form commonly called "clustering." By employing this technique, development can be confined to land best suited to a given use, and the severely limited land can be kept as open space.

Rock Creek

Area Master  
Plan

Although this was adopted in the Rock Creek Plan, overall density should not be the only quantitative control throughout the County. Examples of clustering and nonclustering continue. The objective will remain applicable.

2. Highest development densities should be situated on land having only slight to moderate limitations for construction. It is logical to use the land with the fewest limitations for the highest developmental densities.

Rock Creek

3. Lowest development densities should be located on lands having existing or potentially severe erosion characteristics. Although erosive land is not considered to be as much of a deterrent to development as land containing severe limitations for construction, it does indicate that densities should be related to the degree of land erosiveness.

Rock Creek

4. Development should be excluded from areas identified as having severe construction limitations. Severe soil conditions, although not insurmountable obstacles to development for some uses, have significant limitations for construction and often require costly and continuous maintenance practices after development.

Rock Creek

The logic of Objectives 2, 3, and 4 applies throughout the County, not only in the Rock Creek Planning

Area Master  
Plan

Area. There has been some implementation of these objectives, which will always remain applicable.

5. Provide a land use and zoning pattern which will provide a policies framework to guide private and governmental action.

Fairland

The adopted master plans provide a policies framework. As for a land use pattern, this will remain applicable. A zoning pattern will remain applicable as long as detailed master plans are prepared.

6. Provide flexibility and diversity of development.

Fairland

This should be pursued for all types of development within the environmental framework set for each planning area. The degree of implementation is increasing with applicability remaining.

7. Efficient use of land development should be compact, rather than scattered in a "leapfrog" pattern, in order to prevent land waste and to decrease the cost of public facilities and services.

Clarksburg

Although this objective has applicability throughout the County, some development continues to be scattered throughout the County.



Area Master  
Plan

8. Land uses located to maximize their interests, consistent with the general welfare--wherever possible, commercial and industrial sites should be chosen to maximize profits; residential, recreational, and educational sites should be chosen to provide amenity and encourage human development.

Clarksburg

Some of the basic principles of land use planning contained in this statement have been implemented with varying degrees of success. These principles will always remain applicable.

Living Areas

OBJECTIVES

1. Provide for a variety of residential densities and types.

Damascus

This has applicability throughout the urbanized area within the environmental framework best suited for the individual planning areas. Variations within the corridor cities and the Urban Ring should be rather extensive, while variations in the wedge areas would be somewhat limited.

2. Utilization of topography to its best advantage by encouraging good subdivision design and use of cluster development where appropriate.

Damascus

Appropriate utilization of topography and clustering has universal application. There has been some implementation of this objective which will always remain applicable.

Area Master  
Plan

3. A variety of living environments-- a choice of housing types should be available for persons in all stages of the human life cycle and all income levels. Single-family dwellings, townhouses, garden apartments, and mobile homes should be accommodated in proper locations.

Clarksburg

As a total County objective, this objective should be pursued. It has had limited implementation and continues to be applicable. Housing for the poor is being provided in greater quantities than previously. Also, special housing for the elderly poor is being provided.

GUIDELINES

1. Residential areas should be protected by buffers from the nuisance effects of schools and street design.

Clarksburg

Throughout the County, as plans, subdivision plats and zoning applications are reviewed, steps should be taken to implement this guideline. Implementation has been weak, but it continues to apply.

2. A choice in living accommodations located near amenities, such as parks, schools, and cultural facilities will be offered. Townhouses and garden apartments will be encouraged, as well as single-family development. Tools such as "cluster zoning" should be used to provide amenities. Health hazards and public service costs

Area Master  
Plan

should be minimized in location. A special effort should be made to provide housing in the middle- and lower-cost ranges, consistent with employment opportunities.

There has been some implementation of this guideline and efforts are being made to improve the implementation process. It is still applicable.

Employment Areas

OBJECTIVE

1. Provide within the physical plan a framework for the creation of a stable socio-economic community.

This objective must be viewed on a County-wide basis, not just Fairland-Beltsville. Steps are being taken to implement this objective which is still applicable.

GUIDELINE

1. Employment centers should have access to major transportation routes, but development should not be so intense as to cause congestion. Strip commercial development, impending traffic flow, should be prevented.

In the past, the importance of this guideline has not been fully realized. Congestion in the vicinity of employment areas and strip commercial development were the results. Some implementation has occurred. This guideline will always apply.

Clarksburg

Fairland

Clarksburg

Area Master  
Plan

Community Facilities

OBJECTIVES

1. Provide adequate shopping, schools, recreation areas and other public facilities to serve future growth.

The importance of phasing community facilities to meet growing needs of developing communities has been increasingly recognized with the advent of the Capital Improvements Program. This objective has only been partially met in the past and will have continued application throughout the County.

2. Insure the availability of adequate community facilities and services for future social, educational, and cultural needs of the area.
3. Provide a balanced system of community facilities and services sufficient to meet the economic, social and cultural need of the future population.

The logic of Objectives 2 and 3 applies throughout the County. The size, location and services offered by community facilities should conform to the desires and needs of the community residents. The objective is still applicable.

GUIDELINES

1. Public schools will be accessible and near related facilities. Schools should be centrally located in relation

Kemp Mill

Potomac

Fairland

Area Master  
Plan

Area Master  
Plan

4. The objective of the Plan's open space system is to insure permanent natural amenities and afford a break in the otherwise continuous suburban development.

Fairland

Preservation of local and regional open space areas for conservation, recreation and aesthetic purposes continues to be a County objective of utmost importance toward the creation of a more pleasing and healthful environment.

to the population--with safe access by foot or vehicle--and adjacent to parks, playfields, libraries, and cultural facilities.

Clarksburg

The current use of the park-school concept reflects increasing implementation of this guideline, which continues to have County-wide application.

Agriculture, Open Space, Parks and Recreation

GUIDELINES

1. Major park land acquisition should be guided by analysis of the correlation between the severe limitations for construction and agricultural use and Perceptual Corridor. The frequent, simultaneous occurrence of these environmental factors indicate that the best use of these lands is for public space.

Rock Creek

The County park land acquisition program should continue to show preference to those areas serving multi-purpose open space functions.

2. Establishment of a local and regional stream valley park system.

Potomac

Extensive purchase of stream valley lands for present and future conversion to park uses, mandatory dedication and cluster zoning techniques reflect continuing utilization of this guideline, which continues to apply, especially in those County areas presently undergoing development.

OBJECTIVES

1. Provide a framework upon which public and private open space may be connected.

Damascus

Cluster zoning techniques and continued efforts to conserve small stream tributaries as well as major streams constitute possible implementation tools in meeting this objective which is equally relevant throughout the County. A modest start has been made on implementation, and the objective remains applicable.

2. Preserve natural assets and regional open space.

Fairland

3. Protection of natural resources and provision of open space for recreation in urbanized areas--unique resources should be preserved. Open space in developed areas offers visual relief from the concentration of buildings and absorbs runoff from land covered by structures and pavement.

Clarksburg

Area Master  
Plan

3. A variety of recreational facilities serving all age and interest groups will be provided. Opportunities for land- and water-oriented activities of all kinds should be available in local and regional parks, provided by public, private and commercial interests.

Clarksburg

Numerous opportunities for a wide range of recreational activities including boating, ice skating, fishing, horseback riding, hiking, and golfing indicate progress in the application of this guideline which continues to be relevant throughout the County.

COMPARISON WITH OTHER REPORTS

In the "Report of the Committee to Evaluate the General Plan" (September 1967) all of the statements are listed as goals. The first five goals of the Land Use Element were repeated in the Committee Report.<sup>1</sup> However, in the fifth goal concerning living environments, the discussion focuses on new towns and cluster development while the Committee Report is concerned with a sense of neighborhood and community, natural and architectural inheritance, freedom from physical and mental hazards and stability. The sixth Land Use Element goal emphasizes urban design, greenbelts, and cultural base which in part is what the Committee Report and the General Plan have adequate statements on environment, while the Committee Report is weak on urban design.

Listed as a housing goal, the Committee Report repeats a Residential Objective which emphasizes a wide variation of housing types for all segments of the population.

The Committee Report proposes as a goal statement "Diversify and Expand the Economic Base." This goal cannot be found in the 1964 General Plan, but should be considered as an adopted General Plan policy.

The General Plan guideline pointing out the need to adopt detailed master plans for local areas in accordance with the General Plan is in the Committee Report, but is not discussed in terms of either goals, objectives or guidelines. The General Plan also recommends the appointment of a Community Appearance Advisory Committee but the only mention of such an organization in the report is an architectural review board.

Very little mention is made regarding public facilities (except water and sewer). Only the Objective in the General Plan relating to compact development utilizing community facilities in the most efficient manner is discussed.

A Policy for Parks (December 1968) document covers most of the objectives and guidelines of the open space and recreation section of the Land Use Element. However, several policies, such as the relationship of private and public responsibilities in developing parks and the educational uses of the parks, are not in the 1964 General Plan and are worthy of consideration.

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<sup>1</sup>Report of the Committee to Evaluate the General Plan, Rockville, Maryland, September 1967, pp. 31-34.

#### IV. RECOMMENDED GOAL, OBJECTIVES, AND GUIDELINES

##### GOAL

- \*\*\* A. ACHIEVE A BALANCE AMONG THE VARIOUS LAND USES INSOFAR AS THE PROPER AMOUNT, TYPES AND DISTRIBUTION OF EACH, RESULTS IN AN ENVIRONMENT AND DIVERSITY OF LIFE STYLES THAT FULFILLS THE REQUIREMENTS OF THE COUNTY RESIDENTS.

The movement toward achieving this goal is accomplished through a continuing process. Full achievement is not possible because the economy, the people's desires and technology are not stable. Periodically, the economy, the people's desires and technological changes in life styles must be evaluated. Based on the evaluation, changes in policy should be made to continue moving toward the achievement of the goal.

##### OBJECTIVE

- \*\*\* A. ENCOURAGE THE ASSEMBLY OF LAND INTO LARGE TRACTS AT SUITABLE LOCATIONS TO BE DEVELOPED WITH AN APPROPRIATE MIXTURE OF RESIDENTIAL DENSITIES AND LAND USES.

Most development in Montgomery County has occurred on relatively small tracts of land. As each tract was developed, the inevitable occurred--sprawl. Many tracts of land were bypassed, resulting in sprawl having a greater impact on the landscape.

There are examples of relatively large tracts of land being assembled with a variety of residential, commercial and industrial areas. Some results of this type of development are now in

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\*\*\*Applies to a new statement not contained in the 1964 General Plan.

\*\*Applies to statements which are essentially the same as contained in the 1964 General Plan as amended.

\*Applies to statements which are direct quotes from the 1964 General Plan as amended.

These three symbols are used throughout this report with the same meaning.

evidence. The results are a planned atmosphere, an absence of sprawl and a more pleasant living environment with the amenity of nearby shopping and the potential to live close to one's place of employment. Although this type of development produces obvious benefits to the public and the developer, the design freedom is still limited. This emphasizes the need for the planned unit development zones which remove some limitations and encourage new ideas in urban design, such as what has been accomplished in Montgomery Village.

##### GUIDELINE

- \*\*\* 1. ENCOURAGE VARIETY IN DESIGN OF ALL URBAN STRUCTURES AND AREAS TO PROVIDE AN ENVIRONMENT WHICH IS AESTHETICALLY SATISFYING.

##### OBJECTIVE

- \*\*\* B. PRESERVE NATURAL BEAUTY BY PROVIDING THE PROPER RELATIONSHIP BETWEEN POPULATION DENSITY AND OPEN AREAS.

Natural beauty as applied in this objective refers to: the preservation of open space areas in the absence of development; the sensitive treatment of natural features in developing low intensity areas; and securing and maintaining a character of openness through the preservation of open space amenities in areas of intensive development. Natural beauty may then be said to be reflected in a sensitive treatment of open space resources. In various situations, including both locational characteristics and development intensity, resources differ. As a result, relationships of open space to developed areas shift with intensity and location of development.

Examples of natural beauty include the preservation of stream valleys and stands of trees in the midst and at the periphery of development. As the intensity of development increases, considerations for the preservation of natural features may be supplemented by the alteration of natural areas to direct their usefulness to the more intensive setting while maintaining aesthetic openness. Natural areas may be altered for view, for recreational uses and for utilitarian purposes. As the intensity of development approaches that of the Regional Activity Center, the utilization of natural features becomes more difficult while there is an increase in need to provide man-made, sculptured open space.

GUIDELINES

- \*\* 1. TREAT LAND AS A RESOURCE, USING EFFICIENTLY WHAT IS NEEDED FOR ACCOMMODATING EXPECTED URBAN GROWTH, AND CONSERVING THE REST FOR THE FUTURE.
- \*\*\* 2. RELATE THE SIZE, LOCATION AND FUNCTION OF INDIVIDUAL URBAN ELEMENTS TO THE REGION.

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OBJECTIVE

- \*\*\* C. SECURE OPTIMUM UTILIZATION OF LAND.

A land use plan must strive to reflect the optimum utilization of land at a future point in time. In order to arrive at a decision on what land use concept best achieves the optimum use of land, the knowledge of future economic and population information is necessary. However, with a dynamic economy, the plan must be sufficiently flexible to be adjusted to actual conditions as time passes and development occurs. Moving toward the optimum utilization of land is quite difficult in a County with very large areas of undeveloped land. Rather than development following a land use concept and a staging program, it can occur in widely scattered areas not proposed for urban development or out-of-phase in areas proposed for urban development. To prevent this, the plan must have the support of the County government and the citizens.

GUIDELINES

- \*\* 1. PROVIDE REALISTICALLY FOR THE QUANTITY OF LAND FOR EACH TYPE OF URBAN DEVELOPMENT NEEDED TO MEET THE DEMANDS OF URBAN GROWTH.
- \*\* 2. EXPAND THE URBAN CORE AREAS AS THE INTENSITY OF DEVELOPMENT OF THE URBAN CORE REACHES ITS ESTABLISHED LIMITS, OR DIRECT THE ECONOMIC ACTIVITY TO ANOTHER OR NEW CORE.
- \*\*\* 3. LOCATE LAND USES ADVANTAGEOUSLY TO MAXIMIZE THE FUNCTIONAL PURPOSE AND PROFITS OF EMPLOYMENT CENTERS AND TO PROVIDE ENVIRONMENTAL AMENITIES.

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OBJECTIVE

- \*\*\* D. OBTAIN A BALANCED RELATIONSHIP BETWEEN RESIDENTIAL GROWTH AND ECONOMIC OPPORTUNITIES.

In Montgomery County, a balanced relationship between residential growth and economic opportunities means to attract a greater proportion of the new jobs that are being created in the Metropolitan Area than were attracted in the past, rather than mainly attracting new population. Tax returns from residential properties are not sufficient to pay for the services expected by the residents of the County. Thus, without a sufficient number of new jobs to accompany the population increase, a great strain is placed on the County's budget. Either taxes must be inordinately increased on residential property or services reduced. Neither is satisfactory. A greater degree of employment self-sufficiency must be reached than exists today. However, it must be recognized that within this dynamic Metropolitan Area, it is unrealistic to expect 100% self-sufficiency.

GUIDELINES

- \* 1. PROVIDE FLEXIBILITY AND DIVERSITY OF DEVELOPMENT.
- \*\* 2. MIX LAND USES TO MAXIMIZE THE FUNCTIONAL PURPOSE AND PROFITS OF EMPLOYMENT CENTERS AND TO PROVIDE ENVIRONMENTAL AMENITIES.
- \*\* 3. SECURE BOLD INCREASES IN FLOOR AREA RATIOS WITH MIXED USES IN ACTIVITY CENTERS AND IN THE VICINITY OF PROPOSED TRANSIT STATIONS WHERE HIGH DENSITY IS CONSISTENT WITH COUNTY POLICY.

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LIVING AREAS

OBJECTIVE

- \*\*\* E. PROVIDE LAND FOR, AND SECURE DEVELOPMENT OF, ALL TYPES AND DENSITIES OF RESIDENTIAL DEVELOPMENT INCLUDING AN APPROPRIATE MIXTURE OF RESIDENTIAL TYPES WHERE THE ENVIRONMENT WOULD BE ENHANCED.

The population of the County includes all economic levels from the rich to the poor, it includes the old and the young, married and single, married with children and married without children. Although each of these groups does not require a different type of housing, their desires are quite varied. There are variations in the type, quality and density of apartments, attached housing and detached housing. Some people prefer a particular life style and select a neighborhood accordingly. This preference can extend from low-density single-family housing to high-density apartments. However, there appears to be a slowly growing preference to live in a neighborhood with some variety in the types of housing. In addition to stimulating one's visual experiences, this type of neighborhood offers a greater opportunity to become acquainted with people from different backgrounds and with different outlooks on life and thus to widen one's understanding of his fellow man.

#### GUIDELINES

- \*\* 1. ENCOURAGE VARIETY IN DESIGN AND COST OF HOUSING TYPE TO PROVIDE FOR ALL SEGMENTS OF THE POPULATION, INCLUDING THE WORK FORCE NEEDED TO PROVIDE THE COMMUNITY SERVICES AND TO STAFF BUSINESSES.
- \*\* 2. DESIGN FOR A HIGH QUALITY LIVING ENVIRONMENT FOR ALL ALL SEGMENTS OF THE POPULATION.
- \*\* 3. ENCOURAGE A MIXTURE OF DWELLING TYPES TO PROVIDE "LIFE-CYCLE NEIGHBORHOODS".<sup>2</sup>
- \*\*\* 4. USE AVERAGE DWELLING UNIT DENSITY RATHER THAN MINIMUM LOT SIZE AS A MAJOR QUANTITATIVE CONTROL.

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#### OBJECTIVE

- \*\* F. ENCOURAGE CONTRAST AND INTEREST TO THE REGION THROUGH THE CREATION OF DISTINCTIVE VARIATIONS IN THE CHARACTER OF RESIDENTIAL DEVELOPMENT.

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<sup>2</sup>Definition of Life-cycle Neighborhoods: An area where dwelling units of various types provide an opportunity for a variety of age groups.

Throughout the County in single-family subdivision after single-family subdivision, and in apartment complex after apartment complex sameness is much more in evidence than variety in the design of neighborhoods and of individual structures. It is recognized that design differences do exist, but there are primarily variations on a few themes. Thus, monotony rather than interest characterizes living areas. There is a widely held belief that this is the type of living environment that most people desire. Unless the people are offered a choice, there is no way that this can be accurately determined. Certainly many people prefer to live in an area where all of the houses are essentially the same. However, the acceptance of new designs is becoming increasingly apparent as some builders over the past few years have broken with tradition and are offering the people more of a choice.

#### GUIDELINES

- \*\* 1. REQUIRE A HIGH QUALITY LIVING ENVIRONMENT WHICH IS VISUALLY SATISFYING AND ESTABLISHES A CLEAR SENSE OF NEIGHBORHOOD AND COMMUNITY IDENTITY.
- \*\* 2. LOCATE HIGH DENSITY RESIDENTIAL DEVELOPMENT TO FACILITATE ACCESS TO MAJOR THOROUGHFARES, BUS SERVICE AND RAPID RAIL SERVICE WHERE AVAILABLE.
- \*\* 3. EXCLUDE ALL BUT COMPATIBLE LOW INTENSITY DEVELOPMENT ON LANDS HAVING EXISTING OR POTENTIALLY SEVERE EROSION CHARACTERISTICS.
- \*\* 4. PROHIBIT RESIDENTIAL DEVELOPMENT IN UNSAFE AREAS SUCH AS WETLANDS, FLOODPLAINS, STEEP SLOPES, AND UNSTABLE SOILS. \*\*\*\*\*

#### EMPLOYMENT AREAS

Regional Activity Centers and Industrial Areas

#### OBJECTIVE

- \*\*\* G. PROVIDE LAND FOR ALL TYPES OF EMPLOYMENT AREAS THAT ARE COMPATIBLE WITH THE ENVIRONMENT OF THE COUNTY.

As the economy of the Metropolitan Area continues to expand, the County must prepare plans to attract and accommodate new employment and the expansion of existing employment. Plans must also be prepared for the rejuvenation of older areas. The five primary types of areas are: 1) industrial park, 2) light industrial,

3) heavy industrial, 4) office complexes, and 5) Regional Activity Centers (Town Centers).

A number of firms desire a prestige location in a low-intensity environment; the industrial park fulfills this desire. The majority of the firms cannot afford the amount of land required in an industrial park. Therefore, they locate in a light industrial area. Actually most of the types of employment that are permissible in a light industrial area are also permitted in an industrial park. The differences between these two areas are the low density and performance standards in the industrial park. Although the County does not have much heavy industry, some land must be provided to accommodate those heavy industrial activities that are now permitted.

Office complexes, some freestanding and some located in or adjacent to other employment areas, are becoming more important. Office complexes are one of the better types of employment areas that can be dispersed throughout the County to take advantage of the traffic-carrying capacity of the road network. The reason is they can be easily designed to blend with and enhance the environment of not only the immediate area, but the entire County.

Regional Activity Centers are somewhat different than other employment areas in that shopping and cultural facilities comprise an important function of these centers. Employment is primarily retail and various functions performed in offices. As for eventually providing foci within and structure to the Urban Ring, the Regional Activity Centers will be the most important employment areas. The Regional Activity Centers are to perform the same function with the Urban Ring as envisioned for the Town Centers of the corridor cities; presently none of the Regional Activity Centers fulfill this role.

#### GUIDELINES

- \*\* 1. PROVIDE THE OPPORTUNITY FOR THE HORIZONTAL AND VERTICAL EXPANSION OF EMPLOYMENT AREAS TO ASSIST IN KEEPING THE FACILITIES IN SCALE WITH DEMAND.
- \*\*\* 2. PROVIDE LAND FOR DEVELOPMENT AND EXPANSION OF REGIONAL ACTIVITY CENTERS WHICH WILL SERVE THE AREA MOST EFFICIENTLY.
- \*\*\* 3. PROVIDE INDUSTRY WITH A VARIETY OF DESIRABLE LOCATIONS ADEQUATE FOR PRESENT USE AND FOR FUTURE EXPANSION.
- \*\*\* 4. PROVIDE LOCATIONS FOR MANY KINDS OF REVENUE PRODUCING INDUSTRY.

\*\*\* 5. PROVIDE INDUSTRIAL SITES AT DESIRABLE LOCATIONS ADJACENT TO HIGH VOLUME HIGHWAY FACILITIES WHICH ARE IN DEMAND FOR THEIR "VISIBILITY" POTENTIAL.

\*\* 6. PROVIDE FOR INDUSTRIAL-PARK DEVELOPMENT WHILE PROVIDING LOCATIONS FOR THOSE INDUSTRIES WHICH ECONOMICALLY REQUIRE MORE DENSELY DEVELOPED LAND.

\*\*\* 7. PROVIDE A RANGE OF INDUSTRIAL SITES SIZES.

\*\*\*\*\*

#### OBJECTIVE

\*\* H. ENSURE THAT EMPLOYMENT AREAS ARE PROVIDED WITH ADEQUATE ACCESS TO ALL MODES OF TRANSPORTATION.

Employment areas need adequate transportation facilities for three primary purposes: (1) to provide an adequate means for employees to arrive and depart from work, (2) to provide an adequate means for those people who are shopping or conducting business to arrive and depart, and (3) to provide an adequate means for raw materials to be received and finished products to be dispatched. Accommodating employee traffic at peak hours places the greatest strain on the transportation facilities. Thus, it is very important that the planning of employment areas be done in conjunction with transportation facilities. The general types of expected employment and their traffic generating characteristics should be determined prior to locating and delineating employment areas. By having this knowledge, the proper types of transportation facilities with adequate capacities can be planned for each type of employment area.

#### GUIDELINES

- \*\* 1. PROHIBIT THE DEVELOPMENT OF AN EMPLOYMENT AREA TO A SIZE OR INTENSITY THAT WOULD EXCEED THE CAPACITY OF THE PLANNED TRANSPORTATION NETWORK AND THEREBY CAUSE CONGESTION.
- \*\* 2. PROVIDE ACCESS TO EMPLOYMENT AREAS IN SUCH A MANNER AS TO AVOID INTRODUCING LARGE VOLUMES OF TRAFFIC ONTO RESIDENTIAL STREETS.
- \*\*\* 3. STIMULATE DESIGN INNOVATIONS THAT WILL IMPROVE ON-SITE FUNCTIONING, ALLEVIATE TRAFFIC PROBLEMS AND CONTROL TYPES OF LAND USES IN PLANNED HIGHWAY-COMMERCIAL AREAS.



- \*\* 4. LOCATE REGIONAL ACTIVITY CENTERS TO FACILITATE ACCESS TO MAJOR TRANSPORTATION ROUTES, BUS SERVICE, AND RAPID RAIL SERVICE WHERE AVAILABLE.
- \*\*\* 5. LOCATE INDUSTRIAL AREAS WITH DIRECT ACCESS OVER MAJOR THOROUGHFARES TO INTERCHANGE CONNECTIONS WITH CONNECTING FREEWAYS OR TRUNKLINES.
- \*\*\* 6. LOCATE INDUSTRIAL SITES WITHIN EASY COMMUTING TIME OF RESIDENTIAL AREAS AND ACCESSIBLE TO PUBLIC TRANSPORTATION.
- \*\*\* 7. LOCATE INDUSTRIAL AREAS READILY ACCESSIBLE TO RAILROAD SERVICE AND/OR WITH PROXIMITY TO AIRPORTS THAT OFFER COMMERCIAL AIR SERVICE.

\*\*\*\*\*

OBJECTIVE

- \*\*\* I. PROVIDE AN ENVIRONMENT CAPABLE OF ATTRACTING NEW EMPLOYMENT TO THE REGION.

Montgomery County is in competition with every other political subdivision in the Metropolitan Area for new employment. Recognizing this and wishing to continue to move away from the "bedroom" community status into as high a degree of employment self-sufficiency as possible, the County must continue to expand its efforts to attract new employment. However, employment for employment's sake is not necessarily in the County's best interest. The tax returns from employers with primarily low-paid employees in relation to the public services required by these employees is greater than from employers with primarily higher-paid employees. Those types of employment that will provide the greatest benefit to the County should be identified. Then a program should be derived and implemented to attract those types of employment that are most beneficial. However, it must be recognized that the citizens of the County require many different products and services in their daily lives. The employees that provide these are not all highly paid and at the same time it is uneconomical to import the products and services they provide. Therefore, it is beneficial to have some types of employment other than research and development.

GUIDELINES

- \*\* 1. CONCENTRATE MORE OF THE EMPLOYMENT IN REGIONAL ACTIVITY CENTERS AND INDUSTRIAL AREAS.
- \*\* 2. REQUIRE AN ENVIRONMENT IN EXISTING OR PROPOSED EMPLOYMENT AREAS THAT IS COMPATIBLE WITH THE CHARACTER OF THE SURROUNDING AREA.
- \*\*\* 3. PROVIDE, THROUGH CREATION OF NEW JOB OPPORTUNITIES, A BALANCED DEVELOPMENT THAT REDUCES THE TAX BURDEN UPON THE RESIDENTS OF THE COMMUNITY.
- \*\* 4. PROVIDE FOR THE INCLUSION OF PUBLIC AND SEMI-PUBLIC USES AND SPACES AS INTEGRAL FUNCTIONS OF REGIONAL ACTIVITY CENTERS.
- \*\*\* 5. CREATE NEW REGIONAL ACTIVITY CENTERS AND ENCOURAGE REVITALIZATION OF OLDER URBAN CORES.
- \*\*\* 6. STIMULATE DESIGN INNOVATION AND LAND USE ASSOCIATIONS FOR REGIONAL ACTIVITY CENTERS WHICH RESULT IN A MORE PLEASANT LIVING ENVIRONMENT AND A MORE EFFICIENT USE OF THE LAND.
- \*\* 7. PROMOTE THE LOCATION OF A LARGE VARIETY OF INDUSTRIAL USES SO AS TO ATTRACT DIVERSE INDUSTRIES INTO THE REGION WHILE CONTINUING TO BE SELECTIVE.
- \*\*\* 8. PROVIDE FOR A VARIETY IN THE DESIGN AND COST OF HOUSING TYPES FOR ALL SEGMENTS OF THE INDUSTRIAL WORK FORCE.
- \*\*\* 9. REQUIRE READY AND ECONOMICAL ACCESS TO THE NECESSARY UTILITIES--WATER, GAS, SEWERAGE, POWER AND TELEPHONE--FOR ALL INDUSTRIAL SITES.
- \*\* 10. DEVELOP INDUSTRIAL PARK SITES IN THE COUNTY IN ACCORDANCE WITH AN OVERALL DEVELOPMENT PLAN RELATING TO SITE SIZE, BUILDING COVERAGE, PROVISION OF UTILITIES AND INTERNAL CIRCULATION FACILITIES AND THE PROVISION OF PERMANENT OPEN SPACE, WITHOUT INJURING RESIDENTIAL USES.

## Standards for Employment

Research indicates that standards vary in different areas of the county, but the following are generally accepted minimum standards:

### 1. Regional Shopping Centers

Have one or more department stores as principal tenants (not less than 100,000 feet).<sup>3</sup>

Provide site areas for centers that are usually 30 acres or more.<sup>4</sup>

Serve a trading area (consisting of 25 minutes, or less, driving time)<sup>5</sup> of a minimum of 100,000 people.

### 2. Industrial Sites

Provide land that is reasonable level with a maximum grade of 5 percent and capable of being graded at a minimum expense.

\*\*\*\*\*

## COMMUNITY FACILITIES

Schools, Libraries, Fire Stations, Hospitals, Health Clinics

### OBJECTIVE

- \*\* J. MAKE PUBLIC INVESTMENTS IN COMMUNITY FACILITIES IN THE MOST EFFICIENT MANNER TO INSURE COMPACT, ORDERLY URBAN DEVELOPMENT AND MAXIMUM SERVICE.

The clustering of different public facilities and services can bring about monetary savings for the taxpayer and convenience for the resident users. The placement of libraries, health clinics, youth centers and other complementary facilities within or on the periphery of high activity centers such as regional shopping areas creates a community focal point and reflects a wise use of expensive land. Cost savings are realized by utilization of the same property or possibly the same building and the sharing of parking areas with the adjacent commercial area or possibly with a church or office facility. Convenience is established by making a number of cultural, educational and public service facilities readily available to a large number of county residents at one highly frequented activity center which offers a wide variety of services.

An example of a combination of public facilities that is quite popular in the County today is the Park-School complex. A joint savings is realized by both the Park Department and the Board of Education by joint use of complementary facilities. In addition, the neighborhood residents have a conveniently located focal point that serves them through all seasons.

### GENERAL GUIDELINES

- \*\*\* 1. COMBINE PUBLIC FACILITIES WHERE POSSIBLE TO ECONOMIZE ON PUBLIC EXPENDITURES AND MAXIMIZE PUBLIC CONVENIENCE.
- \*\* 2. CONCENTRATE MAJOR COMMUNITY FACILITIES IN REGIONAL ACTIVITY CENTERS TO HELP GUIDE GROWTH AS WELL AS RESPOND TO NEEDS GENERATED BY GROWTH.
- \*\*\* 3. LOCATE NEW FACILITIES IN SUCH A MANNER AS TO PROTECT THE INTEGRITY OF RESIDENTIAL AREAS.
- \*\*\* 4. ACQUIRE OR RESERVE SITES FOR COMMUNITY FACILITIES BEFORE PRIVATE DEVELOPMENT TAKES PLACE.

\*\*\*\*\*

<sup>3</sup> The Dollars and Cents of Shopping Center, 1969, p. 45, (Copyright: 1966, by Urban Land Institute, Washington, D. C.).

<sup>4</sup> Urban Land Institute, 1966.

<sup>5</sup> Urban Land Institute Study, 1955, Urban Land Institute, 1966. Community Builders Handbook, 1966, Rockville Mid-City Renewal 1964 and 1965.

## OBJECTIVE

- \*\* K. RESERVE SPACE FOR ALL COMMUNITY FACILITIES WITHIN THE URBAN PATTERN NEAR THEIR INTENDED USERS, INSURING THAT THEIR SIZES, LOCATIONS, AND FUNCTIONS CONFORM TO THE NEEDS OF THE COMMUNITY AND ITS RESIDENTS.

All too frequently development occurs with little forethought regarding the placement and phasing of public facilities. The result is an incomplete community which fails to contain the needed amenities and conveniences of nearby, well-located public facilities. Development of community facilities should be phased to the growing needs of expanding communities. The facilities should be planned in scale with population densities and should offer the residents the services they desire. A major step toward better coordination of public facility placement and phasing has been established with the development of the Capital Improvement Program. It will now be possible to coordinate the efforts of all local public agencies and alleviate inadequacies and shortages in public facilities with a comprehensive approach.

## GENERAL GUIDELINES

- \*\*\* 1. PHASE PUBLIC FACILITY DEVELOPMENT TO MEET POPULATION GROWTH RATES AND NEEDS.
- \*\* 2. PROVIDE THE NECESSARY COMMUNITY FACILITIES NEEDED BY RESIDENTS OF ALL AGE GROUPS IN SCALE WITH POPULATION DENSITIES AND COMPOSITION.
- \*\* 3. INSURE OPTIMUM CULTURAL, SOCIAL, EDUCATIONAL AND RECREATIONAL OPPORTUNITIES BY SUPPLEMENTING PUBLIC FACILITIES WITH PRIVATE.

\*\*\*\*\*

## OBJECTIVE

- \*\* L. COORDINATE THE LOCATION OF SCHOOLS, LIBRARIES, FIRE STATIONS, HOSPITALS, HEALTH CLINICS, AND OTHER PUBLIC FACILITIES TO INSURE A BALANCED SYSTEM OF COMMUNITY FACILITIES AND SERVICES SUFFICIENT TO MEET ECONOMIC, SOCIAL AND CULTURAL NEEDS.

The coordinated efforts of the County public agencies in formulating the Capital Improvement Program will bring the

County resources to bear on the public facility shortage in a logical order of priority. To help avoid these shortages in the future, comprehensive planning on the community level must be expanded to include all the developing areas of the County. An additional aspect of planning must be established in the form of phasing public facilities and service with development. This phasing technique must be accomplished through better coordination between private developers and the various public agencies to insure that the residents of the new communities are served by a balanced system of community facilities and services which grow as the area develops and not years after the community has been established.

## Schools

### SPECIFIC GUIDELINES

- \*\*\* 1. LOCATE SCHOOLS AFTER CAREFUL CONSIDERATION OF THE FACTORS OF ACCESSIBILITY AND ENVIRONMENT:

#### ACCESSIBILITY

- TRAVEL DISTANCES
- UNDESIRABLE TRAVEL CONDITIONS
  - A. TRAFFIC FLOW
  - B. NUMBERS OF PUPILS CROSSING DANGEROUS INTERSECTIONS
- AVAILABILITY OF PUBLIC TRANSPORTATION

#### ENVIRONMENT

- TYPE OF NEIGHBORHOOD
- POSSIBLE FUTURE DEVELOPMENT
- DAYLIGHT OBSTRUCTION
- SOURCES, DEGREE, AND TYPE OF NOISE
- ECOLOGICAL AND SCENIC QUALITY
- PROXIMITY TO OTHER PUBLIC FACILITIES

- \*\*\* 2. DESIGN SCHOOLS TO FUNCTION AS NEIGHBORHOOD AND COMMUNITY MULTI-USE CENTERS, SERVING THE COMMUNITY'S SOCIAL, CULTURAL, VOCATIONAL AND RECREATIONAL AS WELL AS EDUCATIONAL NEEDS.
- \*\*\* 3. ENCOURAGE YEAR-ROUND AND EVENING USE OF SCHOOL BUILDINGS.

- \*\*\* 4. KEEP EXISTING AND PROPOSED SCHOOL SITES RELATIVELY FREE FROM SUCH EXTERNAL DISTURBING FACTORS AS HEAVY TRAFFIC, EXCESSIVE NOISE, AND INCOMPATIBLE LAND USE.
- \*\* 5. LOCATE, CENTRALLY, SCHOOLS IN RELATION TO POPULATION-- WITH SAFE ACCESS BY FOOT OR VEHICLE--AND ADJACENT TO PARKS, PLAYFIELDS, LIBRARIES, AND CULTURAL FACILITIES.

STANDARDS

- 1. Elementary and Secondary School Standards.

Montgomery County<sup>6</sup>

<u>Type of School</u>	<u>Site Size</u>	<u>Students</u>	<u>Radius of Access</u>
Elementary	10 acres	476-728	1 mile
Junior High	20 acres	1000-1200	1-1/2 miles
Senior High	30 acres	1500-1800	1-3/4 miles

- 2. Community and Junior Colleges<sup>7</sup>

a. Size determined by:

- 1) location
- 2) type of education program offered
- 3) teaching methodology
- 4) availability of land

Libraries

SPECIFIC GUIDELINES

- \*\*\* 1. LOCATE AND CONSTRUCT LIBRARIES IN RESPONSE TO COMMUNITY NEEDS.
- \*\*\* 2. SPACE LIBRARIES EFFICIENTLY TO ASSURE SERVICE TO ALL RESIDENTS, MINIMIZE DUPLICATION OF SERVICE, AND REDUCE COSTS.

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<sup>6</sup>General Standards used by Montgomery County Board of Education.

<sup>7</sup>Based on conversations with officials of American Association of Junior Colleges and local school boards.

- \*\*\* 3. LOCATE LIBRARY SITES IN OR ADJACENT TO ACTIVITY CENTERS:

- .TO PROVIDE SERVICE TO THE GREATEST NUMBER
- .TO SHARE PARKING FACILITIES
- .TO TAKE ADVANTAGE OF ACCESS
- .TO PROVIDE CONVENIENT FACILITIES FOR MEETINGS, FORUMS, LECTURES AND OTHER SIMILAR CULTURAL ACTIVITIES.

- \*\*\* 4. PROVIDE MOBILE UNIT LIBRARY SERVICE TO LOW DENSITY AREAS, AND AS AN INTERIM MEASURE UNTIL POPULATION GROWTH IS SUFFICIENT TO WARRANT CONSTRUCTION OF PERMANENT FACILITIES IN AREAS OF FUTURE URBAN OR SUBURBAN DEVELOPMENT.

STANDARDS

- 1. Community Libraries<sup>8</sup>

- a. Not to be built within three miles of any regional library.
- b. Serve at least 15,000 people within a radius of 1-1/2 miles.

Regional Libraries

- a. Located within a population center of 60,000 to 100,000 persons to serve as a community library for people living within a radius of two miles.

Fire and Rescue Stations

SPECIFIC GUIDELINES

- \*\*\* 1. BASE THE LOCATION OF FIRE AND RESCUE STATIONS ON A REGIONAL SYSTEM IN WHICH INDIVIDUAL SITES ARE MUTUALLY SUPPORTING.
- \*\*\* 2. INTEGRATE FIRE AND RESCUE STATIONS WITH NON-RESIDENTIAL ACTIVITIES SUCH AS NEIGHBORHOOD AND COMMUNITY ACTIVITY CENTERS OR INDUSTRIAL AREAS.

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<sup>8</sup>Montgomery County Library Board Standards.

- \*\*\* 3. LOCATE FIRE AND RESCUE STATIONS AS CLOSE AS POSSIBLE TO HIGH VALUE AND HIGH DENSITY DEVELOPMENT.
- \*\*\* 4. LOCATE FIRE AND RESCUE STATIONS WITH UNOBSTRUCTED ACCESS TO ALL PRIMARY POINTS WITHIN THE SERVICE AREA.

STANDARDS

- 1. Locate fire and rescue stations according to the general location standards below:<sup>9</sup>

	<u>Engine Company<sup>a</sup></u>	<u>Ladder Company<sup>b</sup></u>
High Value (Commercial, Industrial Institutions)	3/4 - 1 1/2 miles	1 - 2 miles
Residential	1 - 1/2 miles	2 miles
Scattered Residential	2 - 4 miles	3 - 4 miles

<sup>a</sup>Engine--Vehicles of this type carry hose, pump, water tank, and various fire-fighting appliances.

<sup>b</sup>Ladder--Vehicles with the chief function of providing large assortments of tools and appliances needed at fires and the men to use the tools.

- \*\*\* 2. Do not locate stations on one-way streets, cul-de-sacs, or poorly maintained roads.<sup>10</sup>
- \*\*\* 3. Locate fire and rescue stations away from places of assembly of large numbers of people.<sup>11</sup>

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<sup>9</sup>American Insurance Association (National Board of Fire Underwriters Fire Department Standards), "Distribution of Companies and Response to Alarms," Special Interest Bulletin No. 315. January 1963.

<sup>10</sup>M-NCPPC, Fire and Rescue Stations, Prince George's County, April, 1969.

<sup>11</sup>Ibid.

- \*\*\* 4. Standard for concentration of fire companies to provide for multiple alarm in high value districts.<sup>12</sup>

ENGINE COMPANIES ..... 15 companies  
within 5 miles

LADDER COMPANIES ..... 7 companies  
within 5 miles

Hospitals

SPECIFIC GUIDELINES

- \*\*\* 1. CONFINE MEDICAL FACILITIES TO AS FEW INSTALLATIONS AS POSSIBLE CONVENIENT TO AND CONSISTENT WITH INDICATED NEED.
- \*\*\* 2. EXPAND EXISTING HOSPITALS WHEREVER POSSIBLE TO MEET COMMUNITY NEEDS RATHER THAN ESTABLISHING NEW GENERAL HOSPITALS.
- \*\*\* 3. DISCOURAGE ESTABLISHMENT OF PROFESSIONALLY SPECIALIZED HOSPITALS UNLESS THEY ARE DEVELOPED AS UNITS ATTACHED TO A GENERAL HOSPITAL.
- \*\*\* 4. LOCATE MEDICAL FACILITIES CLOSE TO AREAS OF POPULATION CONCENTRATION WHERE COMPETENT MEDICAL AND SURGICAL CONSULTATION IS READILY AVAILABLE AND WHERE EMPLOYEES CAN BE EASILY RECRUITED AND RETAINED.
- \*\*\* 5. LOCATE HOSPITALS IN AREAS EASILY ACCESSIBLE TO MAJOR THOROUGHFARES, FREEWAYS, AND INTERCHANGES, AND WELL SERVICED BY PUBLIC TRANSPORTATION FACILITIES.
- \*\*\* 6. LOCATE HOSPITALS AWAY FROM COMMERCIAL, INDUSTRIAL OR OTHER LAND USES THAT PRODUCE EXCESSIVE NOISE OR CAUSE AIR POLLUTION.

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<sup>12</sup>National Board of Fire Underwriters, "Fire Department Standards--Distribution of companies and response to alarms--," New York, New York, January, 1963.

STANDARDS

1. Standards for General Hospitals:<sup>13</sup>

<u>Type of Standard</u>	<u>General Consensus</u>	<u>Range</u>
Minimum Hospital Size	200 beds	50-200 beds
Maximum Hospital Size	600 beds	600-800 beds
Acreage Required for a 200-Bed Hospital	20-25 acres	10-25 acres

Public Health Clinics

SPECIFIC GUIDELINES

- \*\*\* 1. PLACE HEALTH CLINICS IN CLOSE PROXIMITY TO THEIR MOST FREQUENT USERS (FOR EXAMPLE, CONCENTRATIONS OF LOW INCOME PEOPLE AND SENIOR CITIZENS).
- \*\*\* 2. COMBINE HEALTH CLINICS WITH RECREATION CENTERS OR WITH HOSPITALS WHENEVER POSSIBLE.

STANDARDS

- 1. Locate health centers within 20-30 minutes travel time of their patrons in areas well serviced by public transportation.<sup>14</sup>

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AGRICULTURE, OPEN SPACE, PARKS, AND RECREATION

OBJECTIVE

- \*\* M. AVOID THE INTRUSION OF A MIXTURE OF CONFLICTING LAND USES INTO AGRICULTURAL AREAS, WHILE PERMITTING A WIDE SELECTION OF COMPATIBLE ACTIVITIES.

<sup>13</sup>American Hospital Association and Public Health Service (Joint Report), U. S. Department of Health, Education, and Welfare, P.H.S., Area-Wide Planning for Hospitals and Related Health Facilities, July, 1961.

<sup>14</sup>Interview with Projects Assistant to the Montgomery County Health Officer.

The agricultural areas of the county will be entirely within the wedges, constituting a major use within the open space system. Additional proposed uses within the wedge area include parks, conservation areas, private recreation, large lot residential development, natural resource extraction and agriculture. These uses will not interfere or hinder agricultural productivity since they do not require the best soils nor do they serve to over-inflate property values causing a corresponding increase in taxes.

The best agricultural soils are usually the better soils for urban development. Thus, the allowance for more intense urban uses within the wedge areas would lead to a deletion of agricultural land uses. By limiting non-agricultural uses to those that are compatible to agriculture and of a low intensity, the best soils can be retained for agricultural areas of urbanization as indicated on the General Plan.

GUIDELINES

- \*\* 1. RESERVE WHERE POSSIBLE THE USE OF THE BEST SOILS FOR AGRICULTURAL PURPOSES.
- \*\*\* 2. LIMIT ASSISTANCE TO AGRICULTURAL USES TO AREAS OUTSIDE AREAS OF URBANIZATION AS INDICATED ON THE GENERAL PLAN AND TO AREAS HAVING GOOD AGRICULTURAL LANDS.
- \*\*\* 3. MAINTAIN A RURAL ATMOSPHERE IN OPEN SPACE AREAS, BY LIMITING DEVELOPMENT TO VERY LOW INTENSITY.
- \*\*\* 4. ENCOURAGE COMPATIBLE, LOW-INTENSITY NON-AGRICULTURAL USES.

\*\*\*\*\*

OBJECTIVE

- \*\*\* N. ENSURE THAT AGRICULTURE IN THE REGION BECOMES OR CONTINUES AS A VIABLE LAND USE.

The value and productivity of agricultural lands can be protected from the pressures of urbanization by the promotion of profitable agricultural endeavors. In the absence or near absence of prime cash crops, agriculture in the county will have to investigate new products and explore new marketing potentials to remain viable.

The history of farm assessment legislation in Maryland points to a continuing inability to separate farmland from development pressures, most recently reflected by an inability to secure

passage of a related agricultural zone. Further, there is a lack of selectivity of areas to which farm assessment would be applied.

Additional efforts appear necessary to result in the selective application of farm assessment to portions of the region beyond urban areas which have soils well suited for agricultural uses.

#### GUIDELINES

- \*\*\* 1. PROTECT AGRICULTURAL LANDS TO PRESERVE THEIR VALUE AS FARMLAND AS LONG AS THE PRESSURES OF URBANIZATION PERMIT.
- \*\*\* 2. PROMOTE THE DEVELOPMENT OF PROFITABLE AGRICULTURAL ENDEAVORS.
- \*\* 0. MAINTAIN LARGE AMOUNTS OF OPEN SPACE.

Large expanses of open space are necessary for a pleasing and healthful environment. The development of an open space system would be an enormous task of great complexity, involving all levels of government, independent agencies and individual developers and property owners. The system should be based on a functional priority basis using all available techniques for securing land for open space uses. The highest priority lands would be those serving multi-purpose functions and those that would be most difficult to replace. It is well to remember that open space is irreplaceable in urban areas once it has been committed to an urban use. When properly integrated with urban development it can provide a wide variety of necessary and desirable functions.

#### GUIDELINES

- \*\* 1. USE OPEN SPACE TECHNIQUES TO PRESERVE THE IDENTITY OF INDIVIDUAL NEIGHBORHOODS, CLUSTER DEVELOPMENTS, NEW TOWNS, AND EXISTING COMMUNITIES.
- \* 2. PROVIDE AND PROTECT LARGE OPEN SPACES FOR THE "CHANGE OF PACE" AND RECREATIONAL OPPORTUNITIES NEEDED BY PRESENT AND FUTURE GENERATIONS.
- \*\* 3. GIVE PRIORITY CONSIDERATION TO UNIQUE NATURAL AREAS IN PARKLAND AND OPEN SPACE ACQUISITION PROGRAMS. THESE AREAS INCLUDE THE FOLLOWING:
  - A. SCENIC VISTAS;

- B. AREAS WHICH SHOULD REMAIN IN A NATURAL AGRICULTURAL OR UNDEVELOPED STATE DUE TO SOIL CONDITIONS, FLOODING, ETC.;
- C. AREAS POSSESSING UNIQUE NATURAL FEATURES IN TOPOGRAPHY WOODLAND AND ROCK OUTCROPPINGS;
- D. SIGNIFICANT SURFACE WATER AREAS, FLOODPLAINS, WETLANDS, AND AQUIFER RECHARGE AREAS;
- E. CULTURAL AND HISTORICAL BUILDINGS AND SITES.

- \*\* 4. PROVIDE A FRAMEWORK UPON WHICH PUBLIC AND PRIVATE OPEN SPACES MAY BE CONNECTED.
- \*\* 5. INTEGRATE COUNTY OPEN SPACE PLANNING WITH FEDERAL, STATE AND LOCAL PROGRAMS FOR RURAL DEVELOPMENT, CONSERVATION, AND OPEN SPACE ACQUISITION.
- \*\* 6. TAKE POSITIVE ACTION TO PREVENT DESTRUCTION LARGE-SCALE CLEARING AND GRADING OF LAND.
- \*\*\* 7. ACQUIRE OPEN SPACE AREAS WHERE THEY MAY SERVE MULTI-PURPOSE FUNCTIONS.
- \*\* 8. UTILIZE OPEN SPACE AS A MEANS OF CREATING A MORE PLEASING ENVIRONMENT, AT BOTH THE AREA-WIDE AND INDIVIDUAL SITE LEVELS.

\*\*\*\*\*

#### OBJECTIVE

- \*\*\* P. PROVIDE A FAVORABLE RURAL ENVIRONMENT IN WHICH FARMING, MINERAL EXTRACTION, HUNTING, FISHING AND OTHER NATURAL RESOURCE ACTIVITIES CAN BE CARRIED ON WITHOUT DISRUPTION.

A rural environment precludes the presence of any urban or suburban population densities. To avoid non-rural development in the open space system, firm government policies must be established to stop suburban encroachment, and a workable implementation program must be effectuated to maintain the delineated open space areas.

#### GUIDELINES

- \*\*\* 1. MAINTAIN A RURAL ATMOSPHERE IN OPEN SPACE AREAS BY PERMITTING ONLY LOW INTENSITY DEVELOPMENT.

\*\*\* 2. RESERVE LARGE TRACTS OF LAND FOR FUTURE OPEN SPACE DEVELOPMENT WHICH WOULD GUIDE A DESIRABLE REGIONAL DEVELOPMENT PATTERN.

\*\* 3. INSURE PERMANENT NATURAL AMENITIES THAT BREAK THE OTHERWISE CONTINUOUS SUBURBAN DEVELOPMENT.

\*\*\*\*\*

OBJECTIVE

\*\*\* Q. PROVIDE RECREATIONAL FACILITIES OF SUFFICIENT DIVERSITY TO EFFECTIVELY SERVE THE NEEDS AND INTERESTS OF THE VARIOUS SEGMENTS OF THE COMMUNITY.

Communities are made up of people of all ages, having different and varying interests and therefore requiring a diversity of recreational facilities. To adequately serve a community, multi-purpose facilities and a variety of different recreational facilities must be developed with each community's needs and interests serving as basic criteria in the planning and development stages. Recreation programs must reflect these same desires and the County must retain the personnel capable of providing the leadership and organization.

GUIDELINES

\*\*\* 1. PROVIDE THE NECESSARY GOLF COURSES, BALL FIELDS, PLAY APPARATUS AND OTHER OUTDOOR RECREATIONAL FACILITIES REQUIRED TO MEET THE RECREATIONAL NEEDS OF THE CITIZENS.

\*\*\* 2. ENCOURAGE THE PRIVATE USE OF PUBLIC PARK LAND IN THE PUBLIC INTEREST.

\*\*\* 3. PROVIDE THE NECESSARY COMMUNITY RECREATION CENTERS THAT FULFILL THE NEED FOR YEAR-ROUND, INDOOR RECREATIONAL FACILITIES.

\*\*\* 4. CREATE AND MAINTAIN A BALANCED SYSTEM OF ACTIVE AND PASSIVE RECREATIONAL AREAS.

\*\*\* 5. PROVIDE LOCAL RECREATIONAL OPPORTUNITIES FOR ALL DEVELOPING AREAS.

\*\* 6. PROVIDE A VARIETY OF RECREATIONAL FACILITIES SERVING ALL AGE AND INTEREST GROUPS AND CREATE VARIED OPPORTUNITIES FOR LAND AND WATER ORIENTED ACTIVITIES IN LOCAL AND REGIONAL PARKS THROUGH PUBLIC, PRIVATE AND COMMERCIAL INTERESTS.

\*\* 7. REQUIRE ON-SITE RECREATION SPACE IN NEW DEVELOPMENTS WHEN ADEQUATE PUBLIC SPACE IS NOT AVAILABLE.

\*\* 8. UTILIZE TO THE MAXIMUM EXTENT POSSIBLE BOTH PUBLIC AND PRIVATE LANDS IN THE REGIONAL DISTRICT FOR OUTDOOR RECREATION.

\*\*\*\*\*

OBJECTIVE

\*\*\* R. PROVIDE ADEQUATE PARKS, CONSISTENT WITH ACCEPTED STANDARDS, TO SERVE THE COMMUNITY.

Parks must be conveniently located to their users, especially neighborhood parks used primarily by children. With a policy of convenience and safety in effect, the parks program should aim at establishing a local park in every neighborhood. These facilities serve a local neighborhood function offering primarily active outdoor recreation facilities for the neighborhood residents.

Neighborhood parks are supplemented by other parks of larger proportions that serve a greater number of people over a larger area. These parks are called community parks and regional parks. All supplement each other by providing additional facilities and an increasing variety of facilities. Standards for the size, location and types of facilities change over the years, but the primary objective is to provide enough recreation facilities to meet the needs and desires of the County residents.

GUIDELINES

\*\* 1. ACQUIRE PARK LAND AND DEVELOP IT IN PACE WITH POPULATION GROWTH.

\*\* 2. ACQUIRE PARK LAND AT CRITICAL POINTS TO SEPARATE URBAN FROM RURAL AREAS.

\*\*\* 3. MANAGE THE PARK SYSTEM ON THE BASIS OF SOUND CONSERVATION PRINCIPLES AND PRACTICES, RECOGNIZING THE ECOLOGICAL INTERDEPENDENCIES OF PEOPLE, FLORA AND FAUNA, SOILS AND WATERS.

\*\*\* 4. PLAN, DESIGN, AND CONSTRUCT IN SUITABLE AREAS OF THE PARKS A SYSTEM OF ACCESS ROADS, RECREATION FACILITIES AND PUBLIC UTILITIES THAT WILL BE HARMONIOUS WITH THE NATURAL BEAUTY AND PARK LAND PHYSIOGRAPHY AND WILL REFLECT FULL CONCERN FOR HUMANE AND AESTHETIC VALUES OF THE ENVIRONMENT.



CONSERVATION AREAS  
PARK LAND



FIGURE 5

- \*\*\* 5. INTEGRATE, WHERE APPROPRIATE, PARK AND RECREATIONAL FACILITIES WITH SCHOOL AND OTHER CULTURAL ACTIVITIES OF THE COMMUNITY.
- \*\*\* 6. DEVELOP NEIGHBORHOOD PARKS TO REFLECT THE RECREATIONAL DESIRES AND NEEDS OF THEIR MAJOR USERS.
- \*\* 7. LOCATE SITES FOR NEIGHBORHOOD AND COMMUNITY PARKS, PARK SCHOOLS, AND YOUTH CENTERS IN AREAS EASILY ACCESSIBLE TO THE INTENDED USERS.
- \*\*\* 8. ESTABLISH A SYSTEM OF PARKS, RECREATION AND OPEN SPACE FACILITIES INTEGRATED WITH THE URBANIZED PORTIONS OF THE COUNTY.
- \*\* 9. ACQUIRE STREAM VALLEY PARKS DESIGNED FOR WATERSHED PROTECTION AND PROVIDING LIMITED AND COMPATIBLE RECREATION FACILITIES.
- \*\*\*10. EXPAND MAJOR STREAM VALLEY PARK AREAS ALONG SMALLER TRIBUTARIES AND OTHER PATHS TO GIVE THE POPULATION DIRECT ACCESS TO MAJOR STREAM VALLEY PARKS VIA GREENWAYS.
- \*\*\*11. PROVIDE FOR PEDESTRIAN PLAZAS AND SITTING AREAS FREE FROM ALL VEHICULAR TRAFFIC IN PARKS LOCATED WITHIN URBANIZED AREAS.

- b. Recreation activities limited to 1/3 of total acreage; 2/3 of total acreage dedicated as natural or conservation area.<sup>17</sup>

STANDARDS

- 1. 35 acres of park per 1000 population consisting of:
  - 10 acres of local park in urbanized area
  - 25 acres of regional park<sup>15</sup>
- 2. Regional Park
  - a. 200 acres or more outside of urban areas, providing passive and active recreation serving population within 40-60 minutes driving time.<sup>16</sup>

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<sup>15</sup>MNCPPC, Adopted Budget, Fiscal Year 1968-69, p. 94.

<sup>16</sup>MNCPPC, Recreation and Open Space Standards, February 15, 1966, p. 35.

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<sup>17</sup>MNCPPC, "A Policy for Parks," December, 1968.



CIRCULATION ELEMENT

This section of the report  
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\* - Resigned November 28, 1969

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## I. INTRODUCTION

Historically, urban areas have been places where persons have come together to make a living through the exchange of goods, ideas, and services. Thus, a fundamental requirement in any urban area is a transportation system which provides the maximum degree of freedom of movement for its citizens and economic enterprises.

The purpose of this background report is to evaluate the policy statements relating to circulation as contained in the 1964 General Plan "On Wedges and Corridors," as amended, and their applicability to current conditions. The circulation system consists of highways, mass transit facilities and service (both rail and bus), air transportation, railroads, and non-motorized forms. Since all of these transportation forms make up the total system which provides movement for the area's residents and visitors, they all must be considered as an inter-related network. The underlying theme of the transportation function is that it serves rather than dominates the environment in which we live.

This report discusses the most important circulation issues which are considered to be most critical to Montgomery County. Policy statements contained in the 1964 General Plan, as amended, pertaining to circulation are reviewed and discussed. Comparisons are made between these policy statements and those statements which have been recommended by the Committee to Evaluate the General Plan. Suggested revision in the policy statements, including a broadened transportation goal, and reworded or additional objectives and guidelines are then proposed.

## II. EVALUATION OF THE CIRCULATION GOAL STATEMENT

Six years have passed since the adoption of the General Plan "On Wedges and Corridors." During that time there have been visible changes in the social and economic aspects of urban society and in the problems of the Washington region as a whole. Also, in the same time period significant changes have occurred in national, state, and local policies affecting transportation demand and the provision of transportation facilities. To a certain extent, any goal is a reflection of the concerns and problems of a particular time. Public officials now realize that planning is not limited solely to the provision of physical improvements, such as streets, parks, and public buildings, but is also concerned with the use of these facilities by the public and the effect of such useage on the quality of urban life.

The circulation goal of the 1964 General Plan is as follows:

"Provide an efficient system of transportation including rapid transit."

This statement is narrow in its wording, since efficiency is only one goal of quality urban life. The specific reference to rapid transit was probably appropriate at the time the General Plan was adopted, since at the time there had not been a region-wide commitment to a rapid transit system. Today, however, the transit system is accorded community-wide support in Montgomery County and throughout the Washington area, such that specific reference to rail transit as a goal should no longer be necessary.

The Committee to Evaluate the General Plan saw the need to broaden this goal, and suggested several supporting statements, all of which are covered later in this Report as suggested Objective and Guideline statements.

To reflect the expanded role of transportation and to reflect the need for a balance in facilities to serve a variety of transportation requirements, the circulation goal should be broadened through the following restatement:

GOAL

\*\*\* PROVIDE A BALANCED CIRCULATION SYSTEM WHICH MOST EFFICIENTLY SERVES THE ECONOMIC, SOCIAL, AND ENVIRONMENTAL STRUCTURE OF THE AREA.

III. POLICY STATEMENTS OF THE 1964 GENERAL PLAN

With the importance now being placed on solving the transportation problem, there is a need for more explicit goal, objectives and guidelines relating to the Circulation Element of the General Plan. The 1964 General Plan policy statements might have been adequate at the time of adoption, but with the demands being placed on local and state agencies by the Department of Transportation, it is definitely necessary that the General Plan policies be revised to reflect 1969 existing and 1990 projected conditions.

Areas of public concern which are not adequately enumerated in the 1964 General Plan policy statements are high speed mass transit and both general and commercial aviation. These modes of moving people and goods are becoming more important in today's transportation system and should be accorded more attention in the General Plan.

Specific comments on circulation policy statements contained in the 1964 General Plan and in adopted Area Master Plans are as follows:

OBJECTIVES

1. One objective of the metropolitan transportation system is to make it easy for people to get from any part of the metropolitan area to terminals for inter-city travel. (1964 General Plan)

This is being done now through the area master plans and the proposed rail transit system. It still applies, but other objectives should be developed.

2. "Accessibility" will be a primary goal in the development of the corridor city, not only from one area to another within the city, but also from other parts of the region and the metropolitan rapid transit system will be essential to the accomplishment of this objective. (Germantown Plan)

This statement has not reached the stage of implementation. The function of transit as a "shaper" of urban form should be reflected in a General Plan policy statement.

---

\*\*\*Applies to a new statement not contained in the 1964 General Plan.

\*\* Applies to statements which are essentially the same as contained in the 1964 General Plan as amended.

\* Applies to statements which are direct quotes from the 1964 General Plan as amended.

These three symbols are used throughout this report with the same meaning.

3. An efficient transportation system, harmonious with the land-use pattern--circulation should be direct, safe, and not disruptive to the land-use pattern. (Clarksburg Plan)

This statement includes many objectives worthy of inclusion in the General Plan.

#### GUIDELINES

1. Coordinate the Master Plan of Highways with corridor pattern of development.

This guideline is still appropriate.

2. Cooperate with the National Capital Transportation Agency in establishing an efficient rapid transit system.

This policy statement still applies but the name of the agency should be changed to Washington Metropolitan Area Transit Authority.

3. Incorporate the General Plan transportation recommendations into detailed master plans, including provision for automobile parking, bus loading, and highway-to-transit transfer facilities.

This is a continuing process and still applies.

4. Protect airports with rural and airport zoning and encourage noise studies to define areas unsuitable for residential subdivision.

This policy statement has not reached the stage of implementation. This guideline needs to be rewritten to reflect a broadened concern for protection of new and expanded airport sites.

5. Transportation efficiency will be facilitated by encouraging and controlling high-density development close to major transportation routes and interchanges, by improving existing roads, and by adding new ones. (Clarksburg Plan)

This is a continuing process and still applies. Elements of this statement should be covered in General Plan policy statements.

Basically, there is not much difference between the policy statements of the 1964 General Plan and those discussed in the "Report of the Committee to Evaluate the General Plan."

In terms of the goals statement, the main difference between the General Plan goal and the Montgomery County Ad Hoc Committee's report is staging. The General Plan states "Provide an efficient transportation system..." while the Ad Hoc Committee report states "...transportation goal is to plan concurrently for the major transportation facilities required to achieve the pattern..."

The Ad Hoc Committee's report does not mention any objectives relating to protection to airports as does the 1964 General Plan.

Other than these differences, the policy statements are basically the same.



#### IV. CRITICAL ISSUES AND RECOMMENDED OBJECTIVES AND GUIDELINES

##### Introduction

The circulation system in Montgomery County is reaching a critical point. As a result, critical issues can be identified as they relate to the status of planning and to the determination of development policy in the County. There are several critical issues which do not necessarily lead to specific suggested policy statements. Rather, they serve as a framework for consideration of circulation problems relating to the General Plan. However, a series of other critical issues address themselves to General Plan policy statements. This chapter will discuss these issues in some detail, and will suggest amended and additional policy statements regarding these issues.

The following critical issues are those for which no specific policy statements are considered, but which serve as a framework for evaluation of the General Plan circulation policies.

##### ISSUE: INSUFFICIENT FUNDS

Numerous examples can be cited to illustrate that under past and present policies, government has been unable or unwilling to provide enough money to satisfy transportation demands. The amount of public funds allocated to transportation in Montgomery County has not kept pace with the increase in travel requirements brought about by the accelerated pace of urbanization not anticipated by the General Plan. The delay in appropriation of needed Federal funds for construction of the rail transit system, the time required for completion of the Capital Beltway, and the erosion of the State Roads Commission Six-Year Program due to escalating costs are specific examples of delays in financing needed transportation facilities which were considered necessary in the General Plan. Thus, a very real problem in implementation of the General Plan policy statements has been the unanticipated lag in public expenditures for transportation facilities. Attention should be focused on the need for public support to maintain appropriate levels of funding for transportation facilities in anticipation of the needs.

##### ISSUE: FUNCTION OF CORRIDOR CITIES

The concept of how the corridor cities should develop and how they should function has considerable implications for the transportation requirements of the corridor cities. There are implications for rail transit service, the staging of transit system extensions into the corridors, the provision of freeways and other highways, and the commuting time between these cities and center city Washington. Most importantly, the type of transportation facility required to serve these cities prior to the extension of rail transit must be considered.

The most obvious example of this issue in Montgomery County is the I-70S corridor. Under present financing and construction schedules, rail transit will not be constructed to Rockville until 1977. The timing of subsequent extensions northward within the corridor is unknown at this time. Gaithersburg and Germantown will develop according to a highway-oriented pattern of movement until the rail system is extended. Devices such as commuter service on the B & O Railroad or express buses on 70S probably would not be sufficient to induce a high density development prior to transit unless appropriate development controls are enacted.

If market demands for employment centers are satisfied elsewhere in the County or in the Washington metropolitan region, then development of the corridor cities will be primarily as bedroom communities. The rail transit dependency of these communities would then be a function of the time distance from the cities to down-county and center-city Washington employment areas. If, on the other hand, market pressures for employment areas are satisfied through the provisions of industrial, office and commercial areas in the new towns, then they can be more self-sufficient. Market conditions in the pre-rail transit period will therefore influence the way in which these communities are developed. Based on studies undertaken by others, the percentage of total travel accommodated wholly in a new community can be expected to be only about forty to fifty percent. Adequate freeways will therefore have to be provided to service the corridor cities regardless of their function.

##### ISSUE: NEW AND IMPROVED TRANSPORTATION MODES

New travel modes, utilizing systems that combine the flexibility of the auto with the capacity of mass transit, will probably be available for application prior to 1990. Current land use and transportation planning must somehow consider the requirements of such systems, as well as the requirements of conventional auto, rail, and bus systems. Technology promises improved capabilities in bus transit ranging from feeder buses on existing roads and streets to articulated bus systems operating on exclusive busways. These and other technological improvements merit further study and consideration despite the absence of local precedent and current mechanisms for system control, responsibility and financing. The 1964 General Plan recognized that Montgomery County, as a part of a vibrantly growing Metropolitan Washington, could not continue to rely on an automobile-based transportation system to serve the bulk of its commuting travel. It will be 1975 before the rail system enters Montgomery County and 1980 before it reaches Rockville and Glenmont. Given such a time lag to develop a standard rail transit system, consideration must be given now to the new transportation modes in the long range view of urban development. Uncertainty of future systems, however, makes it impractical at this time to suggest that the General Plan contain specific policy statements relative to such new systems.

\*\*\*\*\*

The following critical issues can be related to policy statements which are or should be included in the General Plan.

ISSUE: SPLIT RESPONSIBILITY FOR LAND DEVELOPMENT AND TRANSPORTATION.

In the absence of consistent and unified transportation policies at the State and Federal levels, Montgomery County finds it difficult to develop meaningful land use policies having adequate provision for all transportation systems. Among all public improvements affecting the spatial distribution of population and economic activity, transportation facilities are more dependent upon State and Federal financing and decisions than other public facilities. Due to the fragmented nature of making transportation policy at the State and Federal levels, the County has been in the position of determining development policy which it hopes will be served by transportation facilities provided by other government agencies. In recent years attempts<sup>1</sup> have been made to encourage State and Federal highway agencies to give full recognition to the planning goals and objectives of the communities which highways are intended to serve. It seems desirable, therefore, that the General Plan contain policy statements to the effect that transportation should be provided to enhance the goals statements of the County, not merely relieve traffic demand.

OBJECTIVE

- \*\* A. TRANSPORTATION ROUTES AND FACILITIES SHOULD BE USED NOT MERELY TO ACCOMMODATE TRAVEL DEMAND, BUT MORE IMPORTANTLY, TO FACILITATE THE ORDERLY GROWTH OF URBAN AREAS WITHIN THE CONTEXT OF GENERAL PLAN GOALS.

GUIDELINES

- \*\* 1. REQUIRE THE TIMING OF NEW HIGHWAY PROJECTS TO COINCIDE WITH THE TIMING OF OTHER PUBLIC FACILITIES INTENDED TO IMPLEMENT DEVELOPMENT GOALS.
- \*\*\*2. REQUIRE THE SERVICE PROVIDED BY HIGHWAY AND TRANSIT ROUTES TO BE CONSISTENT WITH THE ECONOMIC AND SOCIAL GOALS OF THE REGION.
- \*\* 3. LOCATE TRANSPORTATION ARTERIES WITH CONSIDERATION GIVEN TO ENVIRONMENTAL AND CONSERVATION FACTORS.

- \*\* 4. PLAN CIRCULATION SYSTEMS SO AS TO KEEP OUT HEAVY INDUSTRIAL TRAFFIC FROM RESIDENTIAL AREAS WHILE PROVIDING FOR INDUSTRY'S NEEDS.
- \*\*\*5. IN LOCATING MAJOR TRANSPORTATION ROUTES IN BUILT-UP AREAS, MINIMIZE THE DISRUPTION OF LOCAL BUSINESS AND THE DEMOLITION OF SOUND RESIDENTIAL STRUCTURES.

Some policy statements in the 1964 General Plan referred to rail transit as necessary for future growth. Since the Metro system has finally reached the point of financial and public commitment, corollary policy statements should be included in the Plan referring to the role that rail and bus transit should play in shaping desirable development patterns. The rather lengthy list of guidelines suggested below emphasizes the importance of developing all aspects of an effective transit system.

OBJECTIVE

- \*\*\*B. PROVIDE FOR A COORDINATED RAIL-BUS TRANSIT SYSTEM THAT IS AS CAPABLE OF SHAPING DESIRABLE GROWTH PATTERNS AS IT IS IN SERVING PRESENT POPULATION AND EMPLOYMENT CENTERS, AND PROVIDE FOR CONVENIENT EASE OF TRANSFER BETWEEN TRANSIT AND OTHER MODES.

GUIDELINES

- \*\*\*1. LOCATE TRANSIT STATIONS ON SITES CONDUCIVE TO HIGH DENSITY, MULTI-USE DEVELOPMENT WITHIN WALKING DISTANCE TO THE STATIONS.
- \*\*\*2. PROVIDE FEEDER BUS SERVICE TO RAIL TRANSIT STATIONS.
- \*\*\*3. EXPLORE THE FEASIBILITY OF EXCLUSIVE BUS-WAYS WHERE RAIL TRANSIT SERVICE CANNOT ECONOMICALLY BE EXTENDED BECAUSE OF LOW PROJECTED PASSENGER VOLUMES.
- \*\*\*4. UTILIZE AIR-RIGHTS OVER SURFACE RAIL TRANSIT LINES AND STATIONS FOR COMMUNITY FACILITIES, HOUSING, AND OTHER SIMILAR LAND USES.
- \*\*\*5. ENCOURAGE INTERMEDIATE LENGTH RIDERSHIP ON BELOW CAPACITY TRANSIT ROUTES THROUGH APPROPRIATE FARE STRUCTURES.
- \*\*\*6. PROVIDE SUFFICIENT KISS'N RIDE AND ALL DAY PARKING AREAS AT RAPID RAIL AND BUS TRANSIT TERMINALS.

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<sup>1</sup>The Sagamore Conference on Highways and Urban Development, Syracuse University, October 1958. The Hershey Conference on Freeways in the Urban Setting, Hershey, Pa., June 1962.

- \*\*\*7. PROVIDE SHUTTLE SERVICE BETWEEN MAJOR CORE AREAS AND RAIL TRANSIT STATIONS WHERE DESIRABLE.
- \*\*\*8. INTEGRATE TERMINAL FACILITIES FOR VARIOUS MODES AT A FEW STRATEGICALLY LOCATED "TRANSPORTATION CENTERS" SERVING EXISTING AND PROPOSED URBAN CORES, AND PROVIDE HELIPOINTS AT SUCH CENTERS.

\*\*\*\*\*

ISSUE: SAFETY AND EFFICIENCY

Since transportation in a large urban complex of which Montgomery County is a part involves the movement of a significant portion of the population during peak hours, the efficiency of the system and the safety to the traveling public is always of paramount concern. Policy statements in the General Plan relating to these two aspects should, therefore, be retained and strengthened.

OBJECTIVE

- \*\* C. IMPROVE TRANSPORTATION EFFICIENCY SO AS TO MINIMIZE COSTS TO USERS AND TO REDUCE TRANSPORTATION AS A COST ELEMENT IN THE PRODUCTION OF GOODS AND SERVICES.

GUIDELINES

- \*\*\*1. ENCOURAGE DEVELOPMENT OF A RAPID RAIL SYSTEM COORDINATED WITH EMPLOYMENT CONCENTRATIONS CONSISTENT WITH LOCAL DEVELOPMENT POLICY.
- \*\*\*2. FOSTER A PATTERN OF LAND DEVELOPMENT WHICH REDUCES AUTO TRIP LENGTHS.
- \*\*\*3. CONSIDER EXPERIMENTATION WITH NEW TRANSPORTATION MODES IN SPECIAL CASES WHERE THEY WOULD ENHANCE LAND USE GOALS BY PROVIDING THE MOST EFFICIENT SERVICE.
- \*\*\*4. LOCATE MAJOR TRAFFIC GENERATORS AND HIGH-DENSITY RESIDENTIAL DEVELOPMENT CLOSE TO MAJOR ARTERIES.
- \*\*\*5. LOCATE OFFICE EMPLOYMENT AND HEALTH AND WELFARE FACILITIES CONVENIENT TO RAIL TRANSIT STATIONS.

Mention should be made of traffic engineering techniques and principles which should be utilized to enhance safety on roads and streets. Since a major effort of traffic engineering is the operation of the street system after it has been planned and built, the planning of such systems should include a recognition of the function of traffic engineering in circulation planning.

OBJECTIVE

- \*\* D. PROVIDE HIGHWAY SYSTEMS TO CARRY THE REQUIRED VOLUME OF VEHICULAR TRAFFIC SAFELY.

GUIDELINES

- \*\*\*1. UTILIZE TRAFFIC ENGINEERING TECHNIQUES TO IMPROVE VEHICULAR AND PEDESTRIAN SAFETY ON EXISTING STREETS.
- \*\* 2. RESTRICT THE NUMBER AND LOCATION OF ACCESS POINTS ALONG MAJOR ARTERIES FROM HIGH-VOLUME TRAFFIC GENERATORS.
- \*\*\*3. LIMIT AT-GRADE RAIL CROSSINGS TO LOW-VOLUME STREETS AND LOW-VOLUME RAIL LINES, WITH ALL OTHER RAIL CROSSINGS ELIMINATED EITHER BY GRADE SEPARATIONS OR STREET CLOSINGS.
- \*\* 4. LOCATE MAJOR INDUSTRIAL AND COMMERCIAL AREAS CLOSE TO MAJOR ARTERIES IN ORDER TO REDUCE COMMUTER TRAFFIC ON STREETS DESIGNED FOR SHORT TRIPS.
- \*\*\*5. REDUCE VEHICLE-PEDESTRIAN HAZARDS BY LOCATING SCHOOLS AND RECREATION FACILITIES SUCH THAT CHILDREN DO NOT HAVE TO CROSS MAJOR STREETS TO REACH THEM.

\*\*\*\*\*

ISSUE: MOBILITY VERSUS STABILITY

Any transportation project, be it a new freeway, a new transit line, or widening of an existing road, creates a clash between the values of mobility and stability. This is true in all areas of the County, but is most acute in the older communities in the urban ring. In such areas, the natural forces of structural obsolescence and changing economic conditions can combine with the side effects of improvements in transportation routes to threaten the livability of an area. The task of providing adequate transportation capacity through built-up areas without destroying the desirability of these areas as a place to live is a delicate job.

OBJECTIVE

- \*\* E. WHILE PROVIDING ADEQUATE CAPACITY THROUGH BUILT-UP URBAN AREAS, RETAIN THE LIVABILITY AND AMENITIES OF SUCH AREAS.

GUIDELINES

- \*\*\*1. ENCOURAGE THE USE OF MASS TRANSIT RATHER THAN THE USE OF THE AUTOMOBILE FOR TRAVEL THROUGH BUILT-UP AREAS.

\*\*\*2. EXPLORE AND UTILIZE ALL KNOWN TRAFFIC ENGINEERING TECHNIQUES BEFORE RESORTING TO CONSTRUCTION OF MAJOR RELIEF HIGHWAYS THROUGH SUCH AREAS.

\*\*\*3. DESIGN TRANSFER AREAS, SUCH AS BUS TERMINALS AND FRINGE PARKING FACILITIES, SO AS TO REDUCE THE LOCALIZED EFFECT OF NOISE AND AIR POLLUTION ON ADJACENT PROPERTIES.

A related issue is the development of non-motorized transportation forms. Facilities for walking, bicycling and horseback riding are needed most in areas that are subjected to an increasing amount of vehicular movement. These transportation forms are healthful and recreational in nature and serve as a counterbalance to the increased tensions of today's world. The development and use of such facilities in the urban ring can enhance these areas as a place in which to live, partially offsetting drawbacks of these areas brought on by the passage of time.

#### OBJECTIVE

\*\*\*F. RECOGNIZE THE NEED FOR NON-MOTORIZED TRANSPORTATION FORMS TO SUPPORT HEALTH AND RECREATION OBJECTIVES AND TO PROVIDE VISUAL CONTRAST TO VEHICULAR MOVEMENT.

#### GUIDELINES

- \*\*\*1. ENCOURAGE THE USE OF NON-MOTORIZED WAYS LEADING TO SCHOOLS, SHOPPING AREAS, PARKS, LIBRARIES AND OTHER COMMUNITY FACILITIES.
- \*\*\*2. PROVIDE AND MAINTAIN PEDESTRIAN WALKS, HIKING TRAILS, BICYCLE PATHS, AND BRIDLE PATHS.
- \*\*\*3. ALONG STREETS AND COMMERCIAL AREAS, PROVIDE STREET FURNITURE FOR VISUAL INTEREST TO MAKE WALKING A PLEASANT EXPERIENCE.
- \*\*\*4. WHERE TOPOGRAPHICALLY FEASIBLE, PROVIDE PEDESTRIAN SEPARATIONS OVER OR UNDER NEW AND EXPANDED ARTERIES.

\*\*\*\*\*

#### ISSUE: INTER-CITY AIR AND RAIL TRAVEL

Access to major inter-city air and rail terminals must be improved if the benefits of high-speed trains and supersonic jets are to be realized. While such access is an area-wide

problem, the impact on County development policies of feeder or relief terminals and/or ground access facilities should be considered. The problems of air transportation in the County include access to the major terminals for commercial passenger service and development of County air fields for general aviation. The issue involved with rail travel is the need to maintain capacity of the rail system for future utilization.

The development of rail and air facilities may not be considered to be crucial to the success of the General Plan. However, they are important as a focus for the shipment of goods, and therefore, have a bearing on the future placement of employment concentrations in the County.

#### OBJECTIVE

\*\*\*G. PROVIDE FACILITIES TO SATISFY THE NEEDS OF GENERAL AVIATION AND TO IMPROVE ACCESS TO MAJOR AIR TERMINALS.

#### GUIDELINES

- \*\* 1. IDENTIFY REQUIRED RUNWAY AND APPROACH ZONE EXTENSIONS AND LOCATION OF NEW AIRPORTS IN ORDER TO FORESTALL CONFLICTS BETWEEN FLIGHT OPERATIONS AND FUTURE RESIDENTIAL AREAS.
- \*\*\*2. COOPERATE WITH OTHER LOCAL JURISDICTIONS TO IMPROVE GROUND ACCESS TO DULLES, NATIONAL AND FRIENDSHIP AIRPORTS.
- \*\*\*3. PROVIDE SITES NEAR EXISTING AND PROPOSED AIRPORTS FOR INDUSTRIES WHICH RELY ON AIR TRAVEL FOR SHIPMENTS AND PERSONNEL MOBILITY.
- \*\*\*4. DEVELOP A MAJOR GENERAL AVIATION FACILITY FOR MONTGOMERY COUNTY WITH SUPPORTIVE ROAD ACCESS NETWORKS.
- \*\*\*5. PROVIDE ALL-WEATHER NAVIGATIONAL AIDS AT GENERAL AVIATION AIRPORTS.

#### OBJECTIVE

\*\*\*H. PRESERVE THE CAPACITY OF INTER-CITY RAIL FACILITIES FOR MORE INTENSIVE FUTURE USE.

#### GUIDELINES

- \*\*\*1. RESERVE SUFFICIENT LAND AREAS ADJACENT TO RAILROAD LINES TO ATTRACT RAIL-USING INDUSTRIES AND DISTRIBUTION CENTERS.
- \*\*\*2. ELIMINATE AT-GRADE ROAD CROSSINGS ON MAIN LINE RAILROADS.



CONSERVATION ELEMENT

This section of the report  
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\* - Resigned November 24, 1969

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## I. INTRODUCTION

Conservation and ecological preservation are viewed as many things by many people.<sup>1</sup> To some, enforced conservation robs them of the equitable use of their land. To staunch preservationists, conservation areas must remain untouched, and never feel the influence of development. Montgomery County, rapidly growing with fierce development pressures, must find a compromise between the two. It is essential that some unique natural areas be set aside for nature study. Ecological areas will primarily be found within public parks but private wildlife preserves may also serve this function to some extent. These natural areas are likely to be located somewhat distant from population concentrations.

Nature must also be brought close to the people where it may be appreciated daily and enhance the environment. To achieve this, streams, wildlife, and other natural features must be retained within developments. In addition, development needs to be cognizant of the physical factors which severely limit construction, such as poor soils, floodplains and steep slopes. Happily for the planner and the builder, the areas limited for construction are generally the same as those that have the highest conservation values.

Conservation can provide the link between man and nature. Today, with the rapidly accelerating population, urbanization, technology and social problems, the connections between man and nature are becoming weaker. "We will never get very far as long as the forces defending natural open space are constantly on the opposite side of the fence from the forces of development. These two are not mutually incompatible in themselves, but only as a result of extreme positions taken on specific issues. Actually they compliment each other; they are inter-dependent."<sup>2</sup> Development that destroys open space destroys itself, and open space

only holds meaning for people through development. Thus, the solution to resolving the conflict between conservation and development lies in planning and design.<sup>3</sup>

Many people think that nature can only be found in large areas--100,000 acres of mountain wilderness, 1,000 acres of regional park. Certainly these large-scale units are needed in every urban region, but a fifty-foot square "green area" in the central business district is nature at the other end of the scale. In our rapidly growing counties, it is this small-scale nature that must be given more consideration. This is the fundamental change of attitude which must occur if we are to begin to re-integrate urbanism with nature. Major alterations of development attitudes toward topography, rock, water, and trees will have to take place. These ecological factors will have to become an integral and primary part of the plan which produces the final developed form. Elements of natural physical quality must achieve political importance. This change in attitude will lead to changes in policy and in turn to changes in programs.<sup>4</sup> Instead of saying, "let's pipe that unsightly drainage ditch, it will be a maintenance headache," people will say, "let's preserve that lovely little stream, it's a beautiful natural open space area for us to enjoy." This is developing with nature.

The protection of conservation areas for the benefit of present and future generations is an essential but extremely difficult task. As previously inferred, the most effective way to preserve these areas is to make conservation an integral part of the planning process. If consideration of ecological features and desirable conservation practices is given during each step of the planning and development process, problems may be identified, and solutions generally found. Thus the current assessment of the 1964 General Plan included Conservation as one of its five major elements. This marks one of the most significant steps to date in the integration between conservation and planning.

This report discusses, in general, the various aspects of conservation as they relate to the assessment of the 1964 General Plan. Evaluation of goals, objectives, and guidelines found in the 1964 General Plan and suggested revisions are included. Regional conservation values including water values, wildlife and botanical values, historic values, scenic values, and mineral resource values are assessed and a regional conservation pattern

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<sup>1</sup>The terms ecology, ecological, conservation, and natural areas are used as synonyms throughout the report referring to those values or areas rich in water, wildlife, scenic or historic features of such significance that they should be preserved.

<sup>2</sup>Garrett Eckbo, "Critique," Landscape Architecture, July, 1966, College of Environmental Design, University of California at Berkeley, p. 266.

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<sup>3</sup>Ibid., p. 267.

<sup>4</sup>Ibid., p. 268.



proposed. Alleviation of conservation problems and preservation of nature in the urban area - two essentials for improving the quality of our environment - are also discussed. As a result of this analysis, conclusions are drawn and recommended goals, objectives, and guidelines are presented.

## II. BASIC CRITICAL ISSUES

The basic critical issues facing Montgomery County in 1969 concerning the Conservation Element of the General Plan are:

### . PRESERVATION OF VALUABLE NATURAL AREAS

Wetlands, wildlife, forests, botanical and other valuable ecological areas are rapidly being destroyed by urbanization. These important natural areas, most of which are located within stream valleys, once destroyed, will be lost forever to the County.

### . PRESERVATION OF HISTORIC AND SCENIC SITES

Historic sites are visual, tangible examples of past events and efforts experienced in the development of Montgomery County today. Preservation of this valuable heritage is an important conservation issue. Historic sites are being bulldozed or ravaged by fires. Steps to preserve the most essential sites must be taken.

Unique scenic areas are also disappearing rapidly, and without an immediate effort to identify and preserve these features, future residents will not have the benefit of enjoying exceptional scenic vistas.

### . CONSERVATION OF MINERAL RESOURCE LANDS

Existing mineral supplies are rapidly being covered over by urbanization. The preservation of these areas until needed, their efficient staged removal, and the rehabilitation of exhausted sites for future urban uses are essential to the wise use of mineral resources in Montgomery County.

### . REDUCTION OF FLOODING, POLLUTION, SEDIMENTATION AND EROSION

Flooding of streams in Montgomery County has resulted in loss of human lives and costly destruction to buildings, property, roads, bridges and recreational developments. Many of our streams are becoming polluted and choked with sediment. Streams that three or four years ago were crystal clear, today are undesirable and unswimmable because of their stench and murky brown water. Stream valley corridors are essential elements in the reduction of flooding

pollution, sedimentation and erosion. Retention of these corridors (which include floodplains, wetlands, and steep slopes) provides a natural path for floodwaters.

#### INTEGRATION OF NATURE WITH DEVELOPMENT

The development of urban and suburban areas is resulting in sprawling urbanization with little or no regard for the retention of valuable natural areas. The situation is most crucial in business areas where current construction provides a monotonous sea of unbroken concrete and brick. Natural areas must be retained in future developments and incorporated into existing urban centers to provide a more diversified and healthful living environment.

### III. POLICY STATEMENTS OF THE 1964 GENERAL PLAN AND ADOPTED AREA MASTER PLANS

#### Policy Statements of the 1964 General Plan

The 1964 General Plan included only a very small section on conservation. However, various other sections of the Plan touched upon conservation problems and objectives.

Evaluation of the conservation goals, objectives and guidelines extrapolated from sections of the General Plan indicated that none have been totally implemented. A few, however, have been partially realized.

The conservation goals, objectives and guidelines all still apply, but several need further refinement and rewriting. A single exception occurs in that primitive and wilderness areas recommended for acquisition by the General Plan (Guideline 4) are essentially nonexistent in Montgomery County and not a part of the adopted park policy. Development of parkland consistent with sound conservation and ecological principles and practices is stressed by the park policy and should receive more emphasis in the General Plan goals, objectives and guidelines.

Related statements need to be tied together. For instance, some objectives are overlapping, especially those referring to conservation in the rural areas. Some redundancy also occurs in several guidelines relating to clearing and grading regulations and in guidelines regarding park acquisition.

In addition to refinement of existing goals, objectives and guidelines, the following subject areas have not been adequately covered by the present General Plan: ecology, floodplains, stream valley corridors, conservation easements, preservation of historic and scenic areas, and finally the relationship between conservation and cluster, planned unit development, and parkland dedication in subdivisions. New policy statements must therefore be developed to include these subject areas.

The following pages include goals, objectives and guidelines as they appeared in the 1964 General Plan. Each statement is briefly analyzed to determine current status, present applicability and necessary revisions.

#### GOAL

1. Protect Natural Resources and Encourage Their Proper Development.

This goal has only been partially implemented, but remains applicable. To adequately serve as the goal for the entire conservation element it needs to be expanded to include references to ecological, historic and scenic preservation.

2. Land should be treated as one of our most precious possessions, using efficiently what we need for accommodating expected urban growth, and conserving the rest for the unforeseeable future.

Staged development has been attempted to partially implement this goal. The goal, although still applicable, should be a portion of the land use element.

#### OBJECTIVES

1. Natural resources should be preserved until they are needed and then used efficiently.

The natural resources zone proposed in the Fairland-Beltsville Plan is an attempt to implement this objective. However, the zone itself has still not been adopted. The objective is still applicable but should be expanded to include restoration of extraction sites.

2. Soil and watershed conservation practices should be employed to protect water supplies and topsoil.

This objective has been implemented to a certain extent by the Soil Conservation Service's sediment control program. The recently enacted Patuxent River Watershed Act and proposed grading and filling amendments would also assist in the fulfillment of this objective. Watershed conservation has been proposed in the Upper Rock Creek Watershed through a technique termed the "Protected Development District." As the two subjects soil and watershed conservation are somewhat different they should be handled through separate objectives.

3. Rural areas should be kept rural and mineral deposits wherever they occur should be protected for future use.
4. The rural pattern is recommended to provide a favorable rural environment in which farming, mineral extraction, hunting, fishing, and other natural resource activities can be carried on without disruption.
5. Encourage the development and proper use of all the natural resources in the Regional District, and especially in the rural parts.

Objectives 5, 6, and 7 are overlapping statements and should be refined and rewritten as one comprehensive objective. Objective 5 is also somewhat redundant of objective 2. None of the objectives have been implemented and all are still applicable.

#### GUIDELINES

1. Apart from specific conservation areas, soil conservation districts and general regulations such as the anti-bulldozer law will be useful in keeping to a minimum the loss of topsoil and tree cover, and the siltation of streams and flood control dams.

The sediment control program, the Patuxent River Watershed Act, and the proposed grading and filling amendments will assist in the fulfillment of this objective, which is still applicable.

2. Establish a Natural Resources Advisory Committee to
  - reinforce the purposes of rural zoning,
  - make available technical information and advice to encourage the fullest and best use of rural land, and
  - initiate special studies of rural problems.

This is more of an implementation technique than a guideline and for this reason should be eliminated as a policy statement. (Implementation will be treated in an auxiliary publication to the General Plan).

3. Acquire park sites of major historic or cultural significance.

4. Acquire parkland in:

Natural Environment Areas

Various types of areas that are suitable for recreation in a natural environment and usually in combination with nonresidential uses such as forestry.

Unique Natural Areas

Areas of outstanding scenic splendor, natural wonder, or scientific importance.

Primitive Areas

Undisturbed roadless areas, characterized by natural wild conditions, including "wilderness areas."

Guidelines 3 and 4 are presently being implemented by the Commission's park acquisition program with the assistance of the Parkland Evaluation Committee. These guidelines will continue to be applicable with the exception that primitive areas recommended for acquisition by the General Plan (guideline 4) are essentially nonexistent in Montgomery County and not a part of the adopted Policy for Parks. As Park acquisition policies will be included in the land use element, guidelines 3 and 4 would be more appropriately stated there.

5. Enact a rural zone to protect the rural environment as a source of natural resource business.

Several rural zones have been proposed, but none have been adopted to date. This guideline should be eliminated, however, as it concerns implementation which will be recommended in an auxiliary publication to the General Plan.

6. In certain limited cases outstanding natural resources, and areas where indiscriminate urban development would be against the public interest, occur within the urban pattern. Examples are sand and gravel deposits, steep slopes, and floodplains. To preserve these areas for

future extraction or watershed protection, or to avoid unsafe or unhealthful conditions as the result of improper development, it will be necessary to put these urban areas into a conservation zone in which all uses and alterations of the natural terrain and vegetation are subject to special permits approved by the Board of Zoning Appeals.

7. Enact a State law granting preferential tax treatment to those conservation and recreation uses of land which provide permanent open space.

These guidelines have not been implemented to date. As with guideline 5, these statements reflect implementation and thus are inappropriate as guidelines.

8. Explore legal means of regulating destructive large-scale clearing and grading of land.

9. In cases where conservation measures need to be developed or applied to protect the public interest, the required clearing, grading, seeding, landscaping, and other improvements should be included in the subdivision performance bond guarantee.

Guidelines 8 and 9 would be partially implemented by the existing sediment control program and the proposed grading and filling amendments. These guidelines should be combined and rewritten into a guideline which does not refer to implementation techniques.

10. Natural stream beds, steep slopes and floodplains can be protected and turned into assets through the use of subdivision controls. Buildings can be kept off unsuitable portions of land by the establishment of building restriction lines. Stream valleys can be turned into dedicated or reserved storm drainage and recreational facilities. The street layout can be required to take the routes requiring least bulldozing and disruption to natural features of land and natural vegetation.

This guideline is partially effectuated through floodplain and building restrictions contained

in the Montgomery County Subdivision regulations, and cluster provisions which encourage development consistent with natural features. This guideline must be condensed and rewritten to eliminate reference to implementation techniques.

Area  
Master Plan

11. ACTION: Enact a State law that (1) recognizes the Commission's Natural Resources Advisory Committee, (2) allows State officials to serve on it, and (3) directs State agencies to cooperate with it.

Open space dedications in subdivisions have supplemented parkland acquisition to partially implement this objective. It is still applicable.

This guideline is concerned only with implementation and for this reason should be eliminated.

GUIDELINES

Regional Goals, Objectives and Guidelines of Adopted Area Master Plans

	<u>Area Master Plan</u>
<u>GOAL</u>	
1. Conserve and use to best advantage all natural scenic assets.	Damascus
This goal has been partially implemented through parkland acquisition. It is still applicable.	
<u>OBJECTIVES</u>	
1. Preserve natural assets and regional open spaces.	Fairland
These objectives have been implemented primarily through parkland acquisition, and still remain applicable.	
2. Protection of natural resources and provision of open space for recreation in urbanized areas--Unique resources should be preserved. Open space in developed areas offers visual relief from the concentration of buildings and absorbs runoff from land covered by structures and pavement.	Clarksburg

1. The planting of vegetative cover on unforested, highly erosive areas should be undertaken as a conservation measure wherever possible.

Rock Creek

This guideline is partially implemented by the county sediment control program. It is still applicable.

2. Permanent installations should be excluded from the floodplain land. Seasonal flooding accompanied by the deposit of sediment upon the land makes it unsuitable for development.

Rock Creek

The subdivision regulations and building code implement this guideline, which is still applicable.

3. Scenic easements should be used to provide scenic rural roads.

Rock Creek

This guideline could be partially implemented through the Prince George's County scenic easement ordinance, but has not been effectuated to date.

4. Establishment of private conservation areas should be encouraged on land having severe construction limitations.

Rock Creek

Area  
Master Plan

The retention of unbuildable land as open space is currently being effectuated by some developers. The land is used as recreation space for residents of the development and is frequently set aside through cluster and average density-type development. The guideline is still applicable.

5. Unique resources will be preserved and multiple use of these resources permitted where not detrimental. Land with conservation or recreation value should be publicly acquired or controlled before the encroachment of development and rising land values preclude this possibility. It should be used for recreation only if proper safeguards are employed to protect the resource.

Clarksburg

This guideline is being partially implemented through the Commission's Adopted Park policy and the Parkland Evaluation Committee. It is still applicable.

Comparison of Policy Statements with Those of Other Reports

The "Report of the Committee to Evaluate the General Plan" contains many of the conservation goals, objectives, and policies expressed in the General Plan. The report's suggested revision of planning goals does not substantively differ from the above-mentioned conservation statements, but places more emphasis on preservation of scenic and historic areas.

The General Plan policy statements relating to parkland acquisition in conservation areas are generally consistent with the Commission's adopted Policy for Parks. Development of parkland consistent with sound conservation and ecological principles and practices is stressed by the park policy and should receive more emphasis in the General Plan policy statements.

IV. REGIONAL CONSERVATION VALUES

\*\*GOAL--CONSERVE VALUABLE NATURAL AND HISTORIC AREAS FOR  
THE BENEFIT OF PRESENT AND FUTURE GENERATIONS

Exploding populations, greater mechanization and urban sprawl have resulted in the sacrifice of natural values for expeditious development. Without natural resources, man could never have begun the many accomplishments he has completed. But his use of these resources has been hasty, leaving deforested mountains and valleys, destroyed ground cover, and soil exposed to destruction. The result filled the streams with silt and the marshes with debris. Alterations of the landscape caused the waterways to flood, and disturbed the habitats of other living things, sometimes resulting in the depletion and extinction of entire species.<sup>5</sup>

What an improvement it would be today if we could identify the meaningful natural and cultural features in the urbanizing areas, determine the regional patterns they make and then develop the urban fabric in harmony with these conservation elements.<sup>6</sup>

Regional Conservation values have been identified and described in the following section. They include: 1) Water Values; 2) Wildlife and Botanical Values; 3) Historic Values; 4) Scenic Values; and 5) Mineral Values.

These values must be given careful consideration during the regional planning process, and new methods must be developed for their preservation.

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<sup>5</sup>President's Council on Recreation and Natural Beauty, Sea to Shining Sea, (Washington, D.C., 1968), p. 97.

<sup>6</sup>Phillip H. Lewis, Jr., Upper Mississippi River Comprehensive Basin Studies, Appendix B - aesthetic and cultural values. U.S. Department of the Interior, 1968, p. 4.

\*\*\*Applies to a new policy statement not contained in the 1964 General Plan.

\*\*Applies to policy statements which are essentially the same as contained in the 1964 General Plan as amended.

\*Applies to policy statements which are direct quotes from the 1964 General Plan as amended.

These three symbols are used throughout this report with the same meaning.

## A. WATER VALUES

One of the most pleasing sights and sounds of nature is the clean rushing water of a stream or river surrounded by attractive vegetation. Man has always been greatly attracted to water and consequently has developed an interest in aquatic recreational activities.

Water forms the matrix of a regional ecological system. Most natural features, such as steep slopes, floodplains, rock outcrops, woodlands and wildlife are generally found adjacent to streams or other water bodies. This fact increases the importance of water resources to regional conservation in Montgomery County and intensifies the need for their preservation.

### Streams and Rivers

#### OBJECTIVE

- \*\*\* A. PROTECT STREAM VALLEY CORRIDORS TO REDUCE FLOODING, POLLUTION, AND SEDIMENTATION, AND TO PRESERVE ECOLOGICAL FEATURES.

The most important water features in Montgomery County are the streams and rivers. The Patuxent and Potomac Rivers delineate the east and west boundaries of the County and form its richest ecological corridors. The most valuable natural vegetation and wildlife areas, scenic viewpoints, wetlands, wooded steep slopes and unique rock outcroppings are found in the Potomac and Patuxent stream valleys where the potential for all types of recreation including nature study, swimming, boating, hiking, camping, etc., has barely been tapped.

The Potomac, sadly spoiled by man, will never achieve its natural potential unless strict measures are taken to curb pollution and sedimentation. The proposed Potomac National River Park would assist in the protection of the Potomac, but much more is needed. The controversial proposed Potomac River Basin Compact would be a step forward in the right direction, but is unacceptable to local governments. A total reorganization of the compact to permit its acceptance by all involved jurisdictions, without losing sight of its original objectives, is essential and should be undertaken as soon as possible.

The Patuxent River is still predominantly unpolluted, but sedimentation and pollution are ruining the length of the river at a great rate. The Patuxent River Watershed Act, passed by the Maryland Legislature in 1968, should greatly assist in the protection of this valuable water resource and save it from the destruction that has befallen the Potomac. This Act will also assist in the preservation of the ecologically valuable wetlands, most of which fall within the Patuxent River Watershed.

The smaller stream valleys in Montgomery County while not as ecologically rich as the Potomac and Patuxent, also form major natural corridors whose retention is extremely valuable.

The following guidelines are suggested to assist in the preservation of the area's valuable stream valleys:

#### GUIDELINES

- \*\*\* 1. RETAIN STREAM VALLEYS IN THEIR NATURAL STATE BY CONSTRUCTING ONLY ON THE MORE BUILDABLE PORTIONS.
- \*\*\* 2. REQUIRE OPEN SPACE DEDICATIONS OF STREAM VALLEY PROPERTY INCLUDED WITHIN DEVELOPING SUBDIVISIONS.
- \*\* 3. PROVIDE THE OPPORTUNITY FOR OPEN SPACE EASEMENTS IN STREAM VALLEYS.
- \*\* 4. CONTINUE PARKLAND ACQUISITION IN KEY STREAM VALLEYS TO ACHIEVE THE MULTIPLE PURPOSES OF CONSERVATION, RECREATION, PRESERVATION OF NATURAL BEAUTY AND OPEN SPACE.
- \*\*\* 5. CONNECT STREAM VALLEY CORRIDORS TO FORM A UNIFIED OPEN SPACE-CONSERVATION SYSTEM.

\*\*\*\*\*

### Floodplains

The floodplains adjacent to streams are unsuitable for development. Potential danger to life and costly flood destruction to homes, property, roads, bridges and recreational areas all provide severe hazards to development. In addition, construction in the floodplain causes a great deal of sedimentation.

Undeveloped floodplains provide natural areas for the absorption of rainfall and the retention of floodwaters, decreasing the intensity and frequency of flooding. Thus floodplains should be retained in their natural state. They are desirable conservation and recreation areas, their beauty is outstanding and they are an integral element of the ecological stream valley system.

Construction within the 50 year floodplain is prohibited by flood control regulations in Montgomery County. However, one major deficiency exists: the building process in Montgomery County is being carried out without flood protection regulations. Efforts to correct this situation have been made, and should be continued for the protection of both new and established downstream developments.

Adequate floodplain delineation is essential to floodplain protection, but U. S. Army Corps of Engineers' floodplain studies are available for only one stream in Montgomery County. Methods of accelerating floodplain delineation should be investigated to eliminate this void.

Filling in the floodplain greatly increases the flood danger to property downstream. The raising of the ground level in one part of the floodplain causes the flood water previously retained by that spot to seek another course downstream. If several owners fill their land, flood levels may rise to the point where they could inundate buildings and destroy property that had previously been considered out of flood danger. For this reason, filling in the floodplain should be prohibited unless it is essential to benefit public recreation and public transportation and will have no detrimental effect on the flow characteristics of the stream.

#### GUIDELINE

- \*\*\* 6. PROHIBIT CONSTRUCTION AND FILLING IN THE NATURAL FLOODPLAIN AREAS ADJACENT TO WATER COURSES.

\*\*\*\*\*

#### Wetlands

Wetlands are areas covered by standing water and are generally found within the floodplain of streams. They are extremely valuable ecological areas supporting a multitude of interdependent plant and animal life forms, and serving as their breeding grounds.

In Montgomery County, wetlands are almost nonexistent, being found in only one location along the Potomac near Seneca (See Unique Natural Areas Map, page 60).

The wetlands should be preserved in their natural state, and as such, they may provide outdoor classrooms, research laboratories and photographic subject areas. In some instances, they may be opened to hunting and fishing. Filling or construction on wetlands

should be prohibited not only for their conservation value, but because they are generally undesirable for construction.

#### Reservoirs

There are no large natural lakes in Montgomery County. However, a few large reservoirs have been constructed as well as several smaller ones to compensate for this lack of natural lakes. This type of water resource appears to hold great potential for the future. In addition to serving flood and sediment control purposes, impoundments may be centers of aesthetic beauty and recreation. The largest two reservoirs serve the additional purpose of water supply.

Potential reservoir sites (See Map 2, p. 61) have been delineated and indicate that the future possibilities for this water resource are great.

#### GUIDELINE

- \*\* 7. WHERE FEASIBLE, ESTABLISH A SYSTEM OF IMPOUNDMENTS IN MAJOR DRAINAGE BASINS.

\*\*\*\*\*

#### The 1964 General Plan

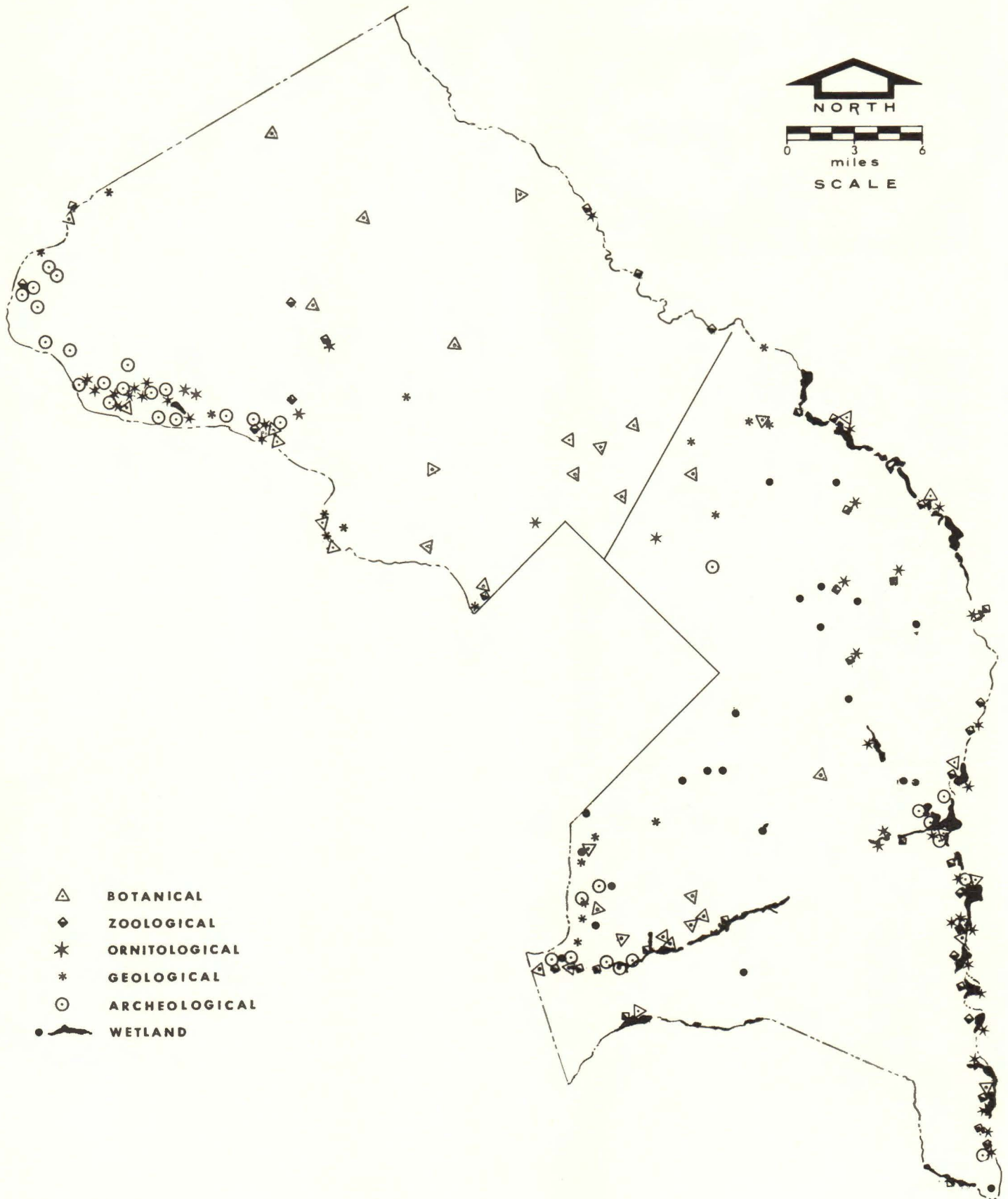
The 1964 General Plan fully recognized the importance of preserving water resources. Of special note was the installation of impoundments and the preservation of streams and floodplains, as measures necessary to relieve flooding, pollution and sedimentation.

The General Plan recommended that Water Resources be preserved through stream-valley parkland acquisition, and open space in subdivisions. These two recommendations are being implemented at the present time.

The Plan also suggested that the need for conservation of water resources can be met by the proper use of public open spaces at the edges of urban corridors where it may also serve to shape development. This suggestion has been implemented in those areas where stream-valley park acquisition has occurred in corridor boundary areas.

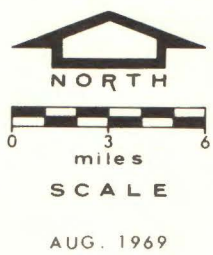
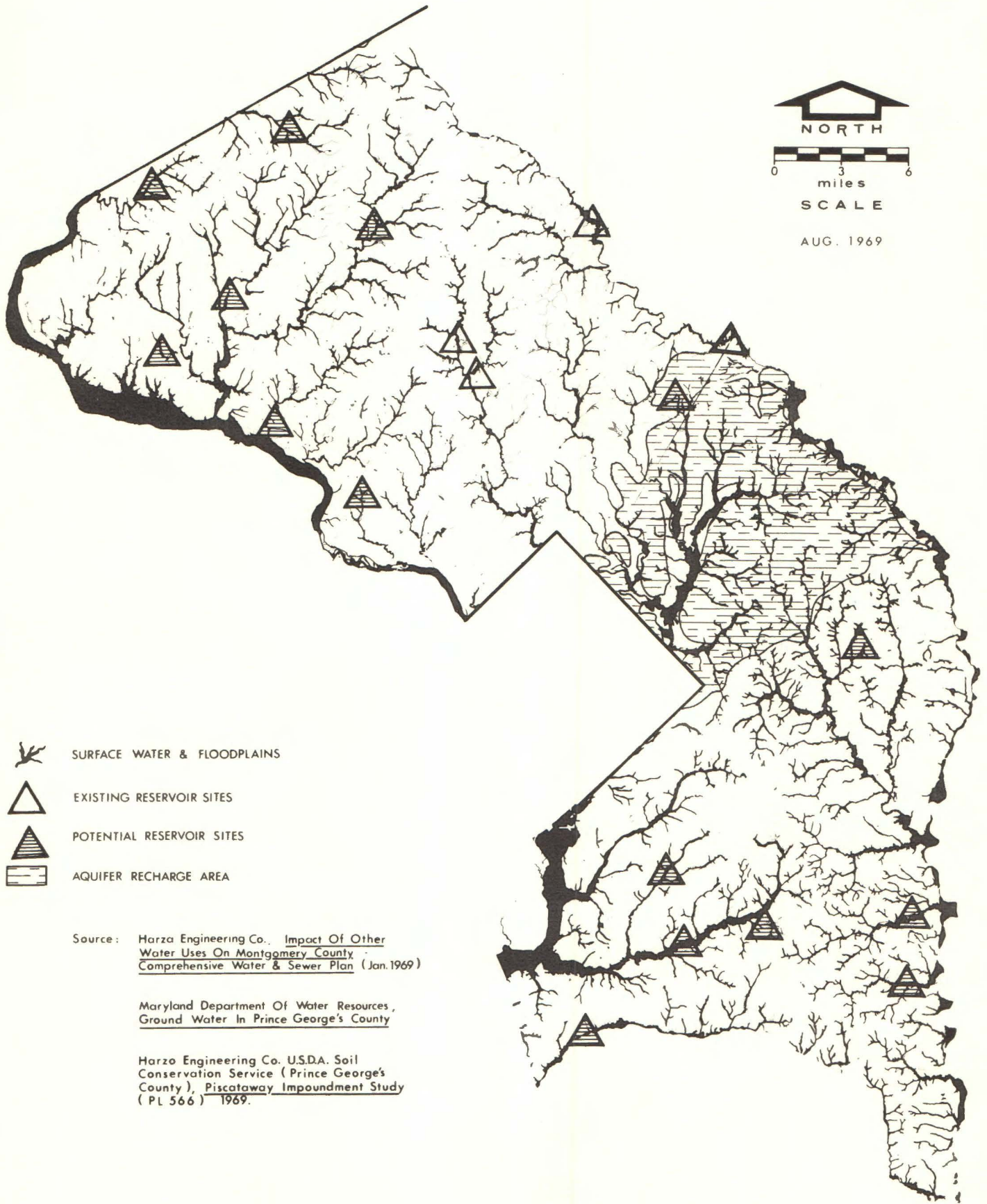






# UNIQUE NATURAL FEATURES



MAP 1

# WATER VALUES



-  SURFACE WATER & FLOODPLAINS
-  EXISTING RESERVOIR SITES
-  POTENTIAL RESERVOIR SITES
-  AQUIFER RECHARGE AREA

Source: Harza Engineering Co., Impact Of Other Water Uses On Montgomery County Comprehensive Water & Sewer Plan (Jan. 1969)

Maryland Department Of Water Resources, Ground Water In Prince George's County

Harza Engineering Co. U.S.D.A. Soil Conservation Service (Prince George's County), Piscataway Impoundment Study (PL 566) 1969.

## B. WILDLIFE VALUES

### OBJECTIVE

- \*\* B. PRESERVE UNIQUE AND REPRESENTATIVE ECOLOGICAL AREAS AND OTHER NATURAL FEATURES.

In the rapidly urbanizing Montgomery County area, wildlife and botanical values are quickly disappearing. While city zoos and arboretums are certainly extremely important, the retention of biological species in their natural habitat is also essential. Representative and even unique plant and animal areas still exist in Montgomery County, and every effort should be made to save them.

\*\*\*\*\*

### Ecological Areas

The most important biological areas are the Patuxent and Potomac stream valleys. Most portions of these stream valleys support a multitude of plant and animal life, housed in a beautiful setting. Smaller stream valleys in the rural portions of Montgomery County also contain important natural areas. (See Unique Natural Features, Map 2, page 60). Similarly, wooded areas are extremely important from an ecological standpoint. (See Map 3, page 63).

Many of the ecological areas will be preserved within existing and proposed Federal, State and local parklands and some are protected privately by such groups as the Izak Walton League; but the remaining unprotected areas are endangered by urban development.

One of the most important innovations in preserving wildlife is the Park and Planning Commission's Nature Center Program. Its importance stems from the fact that it retains wildlife areas near urban populations and carries out an education program to teach children and adults about nature and its importance. Bus loads of children are brought to the center where nature study brings a new element to their education.

Outdoor classrooms for nature study will become more prevalent in the future. The Montgomery County school program includes a week of outdoor education for each 6th grade class. At present, the nature study "camps" are outside the area; however, a camp area is presently under development in the county.

In addition, each summer a group of teachers are instructed in outdoor education teaching methods, so that this element will be eventually incorporated into the curriculum of each elementary school.

### GUIDELINE

- \*\* 1. PROMOTE A PROGRAM FOR THE IDENTIFICATION AND PRESERVATION OF IMPORTANT NATURAL AREAS.

\*\*\*\*\*

### The 1964 General Plan

The 1964 General Plan contained neither policy statements nor specific discussion regarding the preservation of wildlife areas. It did however state that wildlife refuges should be encouraged as a land use in the Plan's proposed rural zone. Although the rural zone has been the subject of several proposed ordinances, none have been adopted to date.

## C. HISTORIC AND SCENIC VALUES

### OBJECTIVE

- \*\*\* C. PRESERVE POINTS OF HISTORIC AND SCENIC SIGNIFICANCE.

### Historic Sites

"Among the most cherished of a nation's treasures are the monuments of its past. Each contributes to the historic texture of society. We look back with reverence to lasting reminders of a vital past. We look forward with confidence to achievements which will enhance our future with accomplishments to match our monumental past. In almost every part of the county citizens are rallying to save landmarks of beauty and history..."<sup>7</sup>

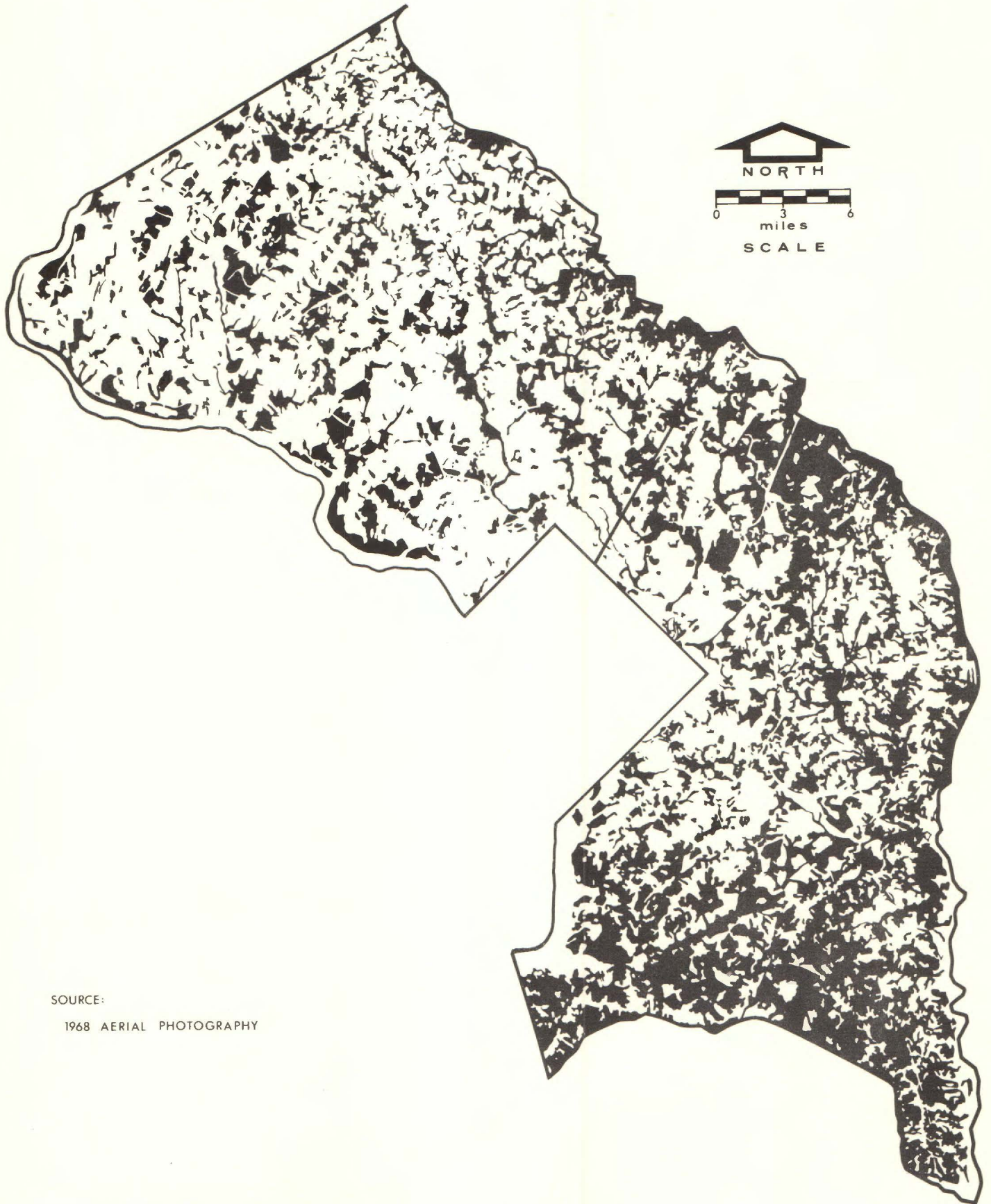
Although it is evident that Montgomery County must continue to grow and develop, it is equally clear that the County's heritage must also be preserved. Only through knowledge of past eras can man understand and appreciate his modern world and admire the efforts and obstacles of his predecessors in creating his current environment.

---

<sup>7</sup> President Lyndon B. Johnson. As quoted in Preserving Historic America, Department of HUD, (June, 1966).

# WOODLANDS

(GENERALIZED)



SOURCE:

1968 AERIAL PHOTOGRAPHY

Montgomery County is rich in heritage. Two hundred and seventy-four historic sites have been identified (See Map 4, p. 65) with the list growing daily. These sites are architecturally representative of a period or style associated with important events or personages or of cultural or archeological value.

The Park and Planning Commission's interest in historic preservation has resulted in the acquisition of several of these significant properties.

Historic sites are disappearing daily, however. Many have become deteriorated, or left untended, are falling into ruin. Some have been ravaged by fires. An ambitious historic preservation planning program is needed to preserve the valuable remnants of the local heritage that remain.

In response to this need, two phase historic planning programs were approved by the Park and Planning Commission in January, 1968. The first phase consisted of the preparation and eventual adoption of the Bi-County Historic Sites Identification Map as an amendment to the Genral Plan. This map was prepared and has been the subject of a public hearing. It is currently being revised and prepared for adoption.

Phase II would involve the carrying out of a comprehensive historic preservation planning program. This program is essential for the establishment of a system for evaluating historic sites and a determination as to which are top priority. Once the historic sites are evaluated, methods for their preservation must be examined.

The final product of the Commission's efforts will be a Historic Preservation Plan, including policy, planning, and programming. This plan will hopefully educate the public and governing bodies as to the need for historic preservation and thereby assist in the effectuation of plan proposals.

#### GUIDELINES

\*\*\* 1. IDENTIFY AND PRESERVE, WHEREVER POSSIBLE, SIGNIFICANT HISTORIC SITES THAT ARE:

- REPRESENTATIVE OF A PERIOD OR STYLE
- ARCHITECTURALLY IMPORTANT
- SITES OF IMPORTANT EVENTS OR ACTIVITIES
- SITES ASSOCIATED WITH IMPORTANT PERSONAGES
- SITES OF HISTORIC CULTURAL VALUE
- ARCHEOLOGICAL SITES

\*\*\* 2. ENCOURAGE PRIVATE PROTECTION OF HISTORIC SITES ON A PERMANENT BASIS.

\*\* 3. CONTINUE AND EXPAND PUBLIC PROTECTION OF HISTORIC PROPERTIES.

\*\*\*\*\*

#### Scenic Values

Conservation is concerned with the preservation of desirable natural features, including exceptional scenic areas. Unique vistas, like representative ecological areas, should be preserved for present and future generations and thus, may be considered a function of conservation.

In Montgomery County, regional scenic values may be classified into two major types. The first type includes exceptional scenic views from rural roads. These consist mainly of outstanding agricultural sections of the Bi-County region but also include estate areas and, in upper Montgomery County, a few mountainous views.

The second type of scenic areas are those that cannot be seen from the road. They are found primarily within stream valleys where hikers may enjoy nature's aesthetic combination of attractive streams, rugged steep slopes - some forested, some with ferns and rock outcrops - and pastoral floodplains. These would include scenic vistas as well as stream-side trails.

Scenic vistas are high points, often the rim of a stream valley slope. The most exceptional scenic vistas in the Bi-County region will probably be found along the Potomac, and Patuxent Rivers. Preservation of a pathway along the rim often provides the observer with a variety of views and landscape forms-- trees, slopes, and rocks. Protruding natural observation platforms provide the most outstanding areas.

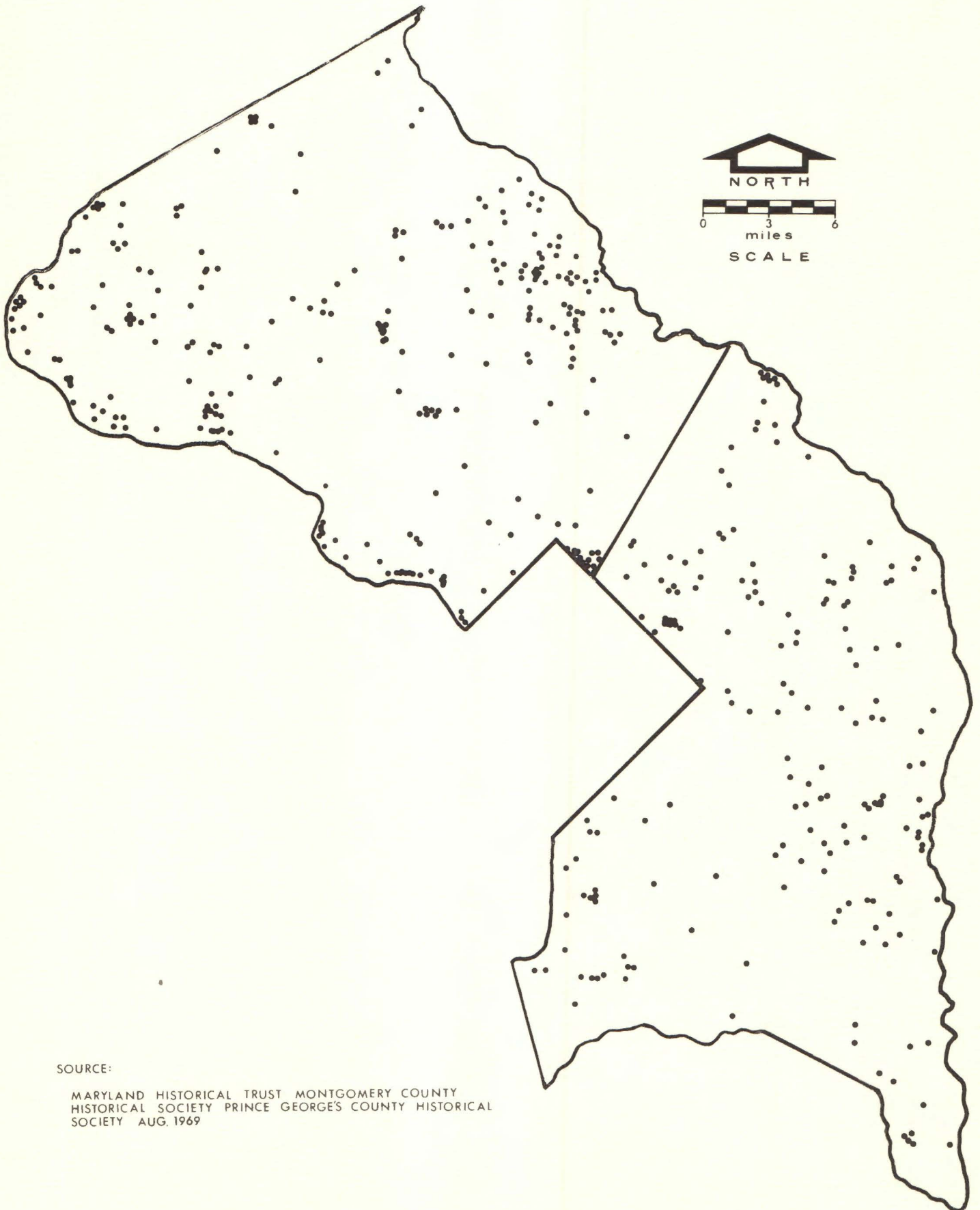
An inventory of the most scenic areas in the Bi-County region has not been undertaken on a regional scale. A scenic survey definitely appears desirable. However, such a task would most feasibly be performed at the subregional or area plan level. Special attention should be given to scenic vistas along the Potomac and Patuxent Rivers.

#### GUIDELINE

\*\*\* 4. PRESERVE EXCEPTIONAL SCENIC AREAS IN MONTGOMERY COUNTY.

\*\*\*\*\*

# HISTORIC SITES

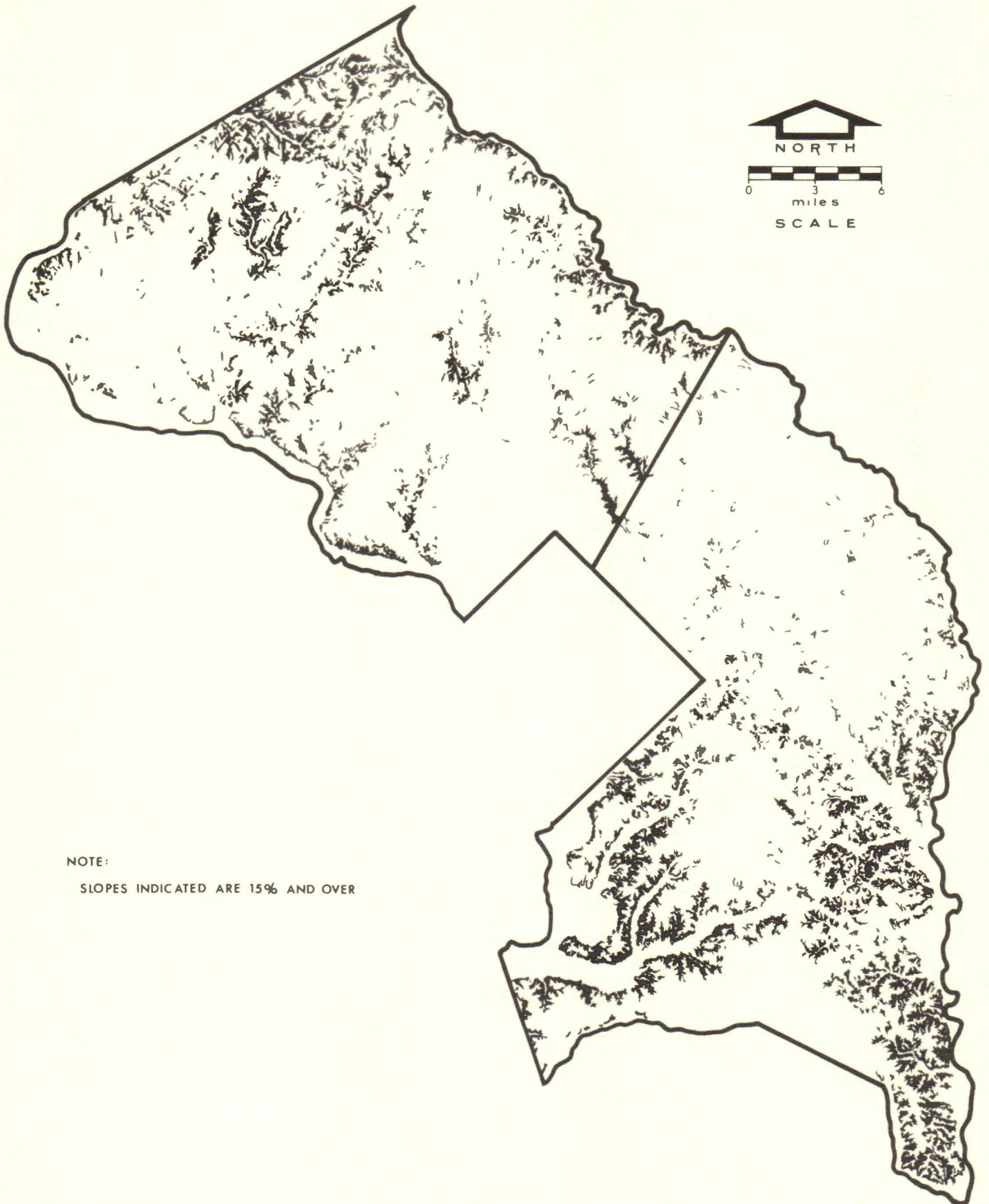


SOURCE:

MARYLAND HISTORICAL TRUST MONTGOMERY COUNTY  
HISTORICAL SOCIETY PRINCE GEORGE'S COUNTY HISTORICAL  
SOCIETY AUG. 1969

# STEEP SLOPES

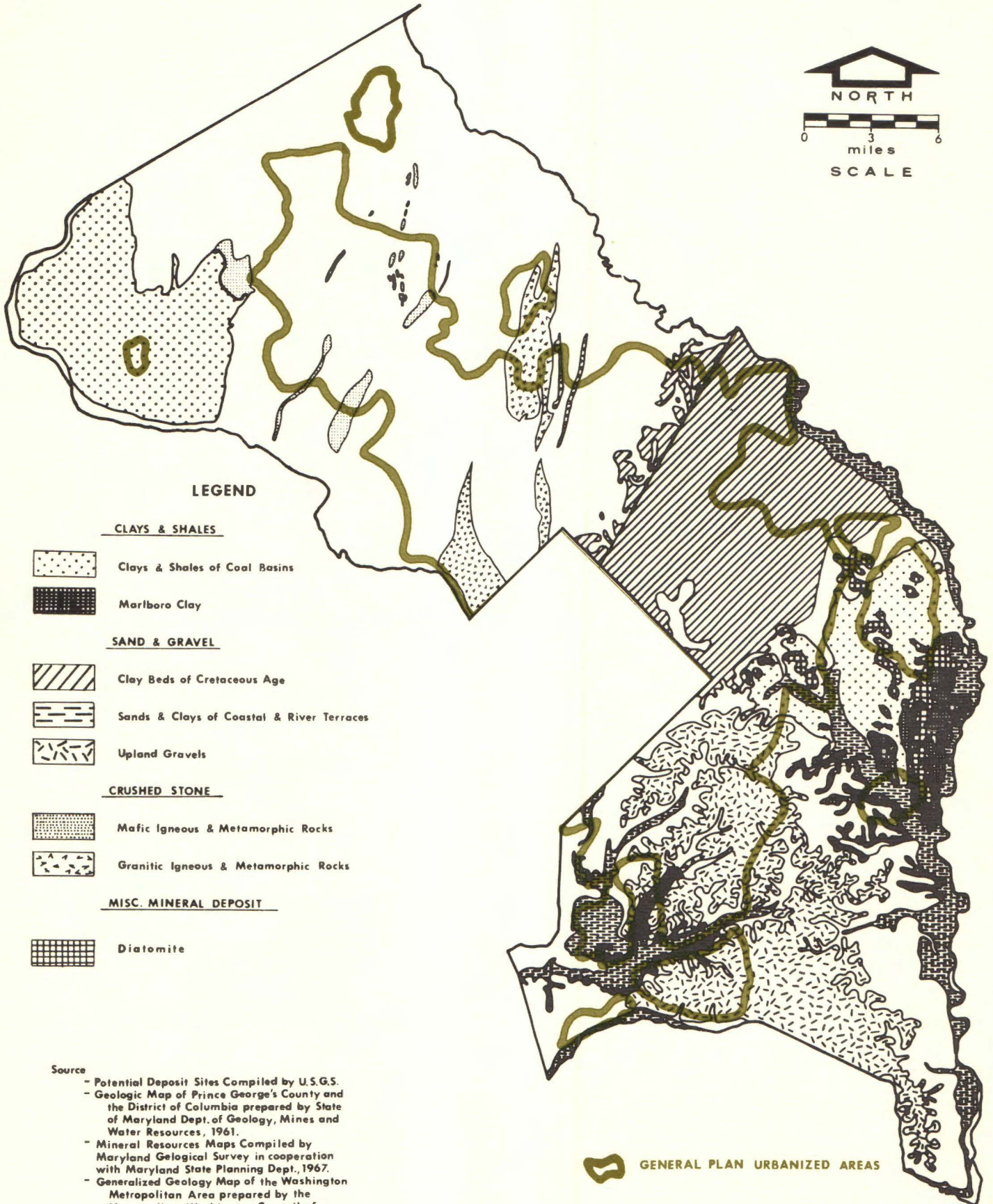
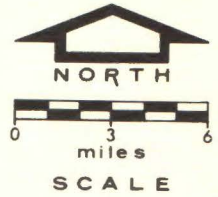
(GENERALIZED)



NOTE:



SLOPES INDICATED ARE 15% AND OVER

# POTENTIAL MINERAL DEPOSITS (GENERALIZED)






## LEGEND



### CLAYS & SHALES

-  Clays & Shales of Coal Basins
-  Marlboro Clay


### SAND & GRAVEL

-  Clay Beds of Cretaceous Age
-  Sands & Clays of Coastal & River Terraces
-  Upland Gravels

### CRUSHED STONE

-  Mafic Igneous & Metamorphic Rocks
-  Granitic Igneous & Metamorphic Rocks

### MISC. MINERAL DEPOSIT

-  Diatomite

### Source

- Potential Deposit Sites Compiled by U.S.G.S.
- Geologic Map of Prince George's County and the District of Columbia prepared by State of Maryland Dept. of Geology, Mines and Water Resources, 1961.
- Mineral Resources Maps Compiled by Maryland Geological Survey in cooperation with Maryland State Planning Dept., 1967.
- Generalized Geology Map of the Washington Metropolitan Area prepared by the Metropolitan Washington Council of Governments

 GENERAL PLAN URBANIZED AREAS



## 1964 General Plan

The 1964 General Plan does not encompass the subject of historic preservation. The plan's only mention of the subject was a suggestion that park acquisition include historic sites.

The Park and Planning Commission has since recognized that historic preservation is an essential element in general planning. As previously mentioned, the Historic Sites Identification Map has, therefore, been prepared as an amendment to the 1964 General Plan, and is currently being revised prior to adoption.

The 1964 General Plan also did not specifically include the subject of scenic preservation. It did suggest, however, that the Commission purchase scenic easements and encourage private ownership of scenic vistas to assure that private uses will not destroy these scenic areas.

Exceptional scenic areas will disappear from the Bi-County without adequate steps to conserve them. Scenic preservation can not be effectively achieved unless it becomes a portion of the planning process. For these reasons, conservation of exceptional scenic areas should be added to the General Plan.

### D. MINERALS

#### OBJECTIVES

##### \*\* D. PROVIDE FOR THE WISE USE OF MINERAL RESOURCES IN MONTGOMERY COUNTY.

In Montgomery County, intrusions of diabase and serpentine provide excellent sources of trap rock<sup>8</sup> and crushed stone. In addition, building and flagging stone is retrievable from extensive outcroppings of the Sykesville formation in the eastern part of the Piedmont in Montgomery County.

The price of minerals almost doubles when hauled over twenty miles.<sup>9</sup> Since huge quantities of these materials are needed in the construction of an urban complex, the cost of construction increases considerably with the distance the materials have to be transported from their source. It is therefore important to preserve minerals near developing areas to avoid the additional cost of long distance hauling.

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<sup>8</sup>Trap Rock is any of a various dark colored, five-grained igneous rocks used especially for road building.

<sup>9</sup>Donald K. Charney. *Productions and Values of Sand and Gravel in 1965*, National Sand and Gravel Association, 1966, p. 3.

## GUIDELINE

### \*\* 1. PROVIDE STAGED REMOVAL AND EFFICIENT UTILIZATION OF MINERAL RESOURCES.

\*\*\*\*\*

#### Rehabilitation of Extraction Sites

Past nuisances resulting from the mineral extraction process, accompanied by a lack of public understanding of the community's vital need for the extracted mineral resources, has resulted in a bad public image for the industry in general. New regulations and increased responsibility on the part of quarrying firms have improved the situation somewhat.

Montgomery County has regulations for mineral extraction operations. These restrictions require that the operations not be noxious, offensive, or objectionable by reason of dust, smoke, noise, or vibrations. In addition, a site plan is required which includes present and proposed grade levels. In the Montgomery County Ordinance, rehabilitation is enforced by bond and includes grading, drainage, and landscaping.

The rehabilitation and future use of depleted mineral sites should be of great concern to public officials. The completion of the extractive operation produces the industry's greatest responsibility and problem. Frequently abandoned sites become nuisances with water areas, steep sided pits or cut banks, abandoned equipment, and jagged hills. The mineral developer can and should provide the initiative and imagination to produce a useful piece of real estate out of an exhausted pit, creating a new parcel of land with permanent new values to the community.<sup>10</sup>

Excavated sand and gravel areas can be rehabilitated to serve almost any land use--residential, commercial, industrial, public facilities, and recreation.<sup>11</sup> Prior to rehabilitation, the operator should check area master plans, and talk with the Planning Commission staff to determine the optimum use for the land.

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<sup>10</sup>Kenneth L. Schellie and David A. Rogier. Site Utilization and Rehabilitation Practices for Sand and Gravel Operations, National Sand and Gravel Association, (1963), p. 7.

<sup>11</sup>Ibid., p.15

Then, the operator should have an approved site plan in accordance with future land use, that contains specifications for grading, compaction, drainage, and landscaping. The Park and Planning Commission can assist the industry by creating ordinances that offer incentives for exceptional design and increased amenities.

#### GUIDELINE

#### \*\* 2. REQUIRE THE RESTORATION OF EXTRACTION SITES.

\*\*\*\*\*

#### The 1964 General Plan

The need to preserve mineral resources for future uses is clear. Conservation zoning was proposed in the General Plan for this purpose.<sup>12</sup> It stated that, "Generally speaking:

- "Construction should be prohibited in this zone unless it can be shown to be in accord with the public interest.
- "Specifications for mineral extraction should include the regulation of access roads, protective set-backs, methods of operations, and plans for restoration of the land when the venture is terminated.
- "The restoration should be guaranteed by either an adequate performance bond, or by a special tax applied during the period of operation."<sup>13</sup>

The General Plan also recommended the establishment of a Natural Resources Advisory Committee " to encourage the development and proper use of all natural resources in the Regional District."<sup>14</sup>

While all implementation techniques suggested by the General Plan for preserving mineral resources have not been carried out, some progress has been made in this direction.

In 1961, an ordinance regulating the operating of quarries was approved in Montgomery County.<sup>15</sup>

The recently adopted Fairland-Beltsville and Vicinity Plan took a major step in implementing the objectives of the General Plan by labeling that portion of the Planning Area which contained valuable mineral resources, as a "Natural Resource Area." Land within the Natural Resource Area is recommended to remain in its existing zoning category and unsubdivided state until the available resources are extracted. In effect this plan proposed a staging of development in the Washington to Baltimore corridor of the General Plan which would protect the community's interest in its mineral resources and promote an orderly conversion of depleted mineral areas to urban uses.

Although the General Plan contained many worthwhile proposals relating to Mineral Resource planning, some of which have been partially implemented, a great deal more is required. A revision is necessary to incorporate a procedure for the protection and removal of the Bi-County mineral resources as well as the restoration of extracted sites. Such a procedure might include the following:

- 1) The preparation of geologic survey and economic analysis of Montgomery County's mineral resources.
- 2) The preparation and adoption of a Mineral Resources Plan to guide appropriate regulatory controls.
- 3) The establishment of a Mineral Resources Advisory Committee, drawn from a cross-section of local government administrators and industry representatives to assist the Commission in developing necessary ordinances to insure efficient management of the region's mineral resources.

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<sup>12</sup>On Wedges and Corridors, pp. 46-47.

<sup>13</sup>Ibid., p. 80.

<sup>14</sup>Ibid., p. 47.

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<sup>15</sup>See Montgomery County Code, "Quarries," Chapter 98.

## V. CONSERVATION PROBLEMS

The previous sections of this report have been concerned with the preservation of valuable conservation features - streams, wetlands, woodlands, and wildlife areas. Equally important aspects of conservation, however, are the problems that have arisen in connection with the preservation of these features - flooding and increased runoff, sedimentation and erosion, and pollution.

### Flooding and Increased Runoff

#### OBJECTIVE

##### \*\* E. REDUCE FLOODING AND EXCESSIVE RUNOFF.

Many of the problems connected with flooding are closely tied to maintaining the floodplain in its natural state - a subject which has been discussed in Chapter IV. Undeveloped floodplains provide natural areas for the absorption of rainfall and the retention of floodwaters, decreasing the intensity and frequency of flooding.

The tremendous construction increase in recent years has resulted in a new type of flooding problem--flash floods, caused by huge amounts of storm water runoff.

Suburban development has overlain the previously water-absorbent countryside with a hard, impervious cover of streets, parking lots, sidewalks and roof-tops. This runoff multiplies with the density of development, increasing from rural residential, to single family homes, garden apartments, industrial, and commercial land uses.<sup>16</sup>

When heavy rains occur, the water no longer filters slowly into the ground, but rushes over pavements and into storm sewers, with ever increasing velocity. The storm water, and all the extra silt and debris it has picked up along the way, now plunges violently into the usually quiet streams, turning them into raging flooded rivers, plummeting downstream, frequently ripping out bridges and anything else that obstructs their path.

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<sup>16</sup>Washington Suburban Sanitary Commission - Storm Drain Design Standards.

The proliferation of impermeable rooftops and pavements at the expense of grass and trees has resulted in yet another problem - the depletion of ground water resources. Ground water is essential for recharging wells and other water supplies as well as nourishing lawns and gardens.

With the recent concerns expressed over water shortages, and resultant curbs on summer water usage, it seems a crime to let so much rainfall uselessly run off into storm sewers. It would appear prudent to investigate methods of decreasing water runoff so that water may be retained on site where it may be most beneficial. Possibilities for water retention in new single-family developments might include channeling storm water into dry wells where it will be slowly absorbed into the ground, or into cisterns for later use. Landscaping and other methods might also be beneficial. In areas of higher density, building coverage could be decreased by increasing height limitations. This would result in a decreased amount of impervious ground cover.

Reduction of runoff from streets, parking lots, and sidewalks should also be investigated. Instead of huge expanses of blacktop, parking lots could be integrated with slightly depressed landscaping strips which would catch runoff as well as beautify. Perhaps a permeable yet durable paving material could even be invented to reduce the problem.

#### GUIDELINE

- \*\* 1. ALLEVIATE STORM WATER RUNOFF AND RESULTANT FLOODING BY DECREASING THE AMOUNT OF IMPERVIOUS GROUND COVER.
- \*\* 2. REPLENISH GROUND WATER SUPPLIES THROUGH INNOVATIVE WATER RETENTION TECHNIQUES.

### Sedimentation and Erosion

#### OBJECTIVE

- \*\* F. PROTECT CONSERVATION RESOURCES FROM DESTRUCTIVE SEDIMENTATION AND EROSION.

Until recently the principles of soil conservation have had little to do with construction on suburban land. Typically, all vegetation was cleared and burned leaving the land bare to the forces of heavy rains.

"Erosion on such lands may reach a rate of 40,000 to 50,000 tons per square mile per year, with some estimates running far higher than that."<sup>17</sup>

As a result, many of the streams and water bodies in the county are already polluted and almost all are silt-choked and unattractively brown with sediment.

The great increase in population, sewerage loads and building construction is severely compounding the problem. Streams that were crystal clear three or four years ago are undesirable and unswimmable today because of their bacteria, stench and murky brown water.

Deposition of sediment also obstructs storm sewers and road ditches, silts valley lands, and reduces the capacity of lakes and reservoirs. Sediment blocks and eventually closes navigation channels, limits recreational opportunities and contributes greatly to the general unsightliness of our major rivers - the Potomac and Patuxent.<sup>18</sup> The resultant damages incurred by property owners - both public and private - is a costly proposition.

This unfortunate situation must not be allowed to continue and steps to reverse the process are being taken at the local level. Sediment control in the urbanizing area has become a stated policy of the County government and all concerned public agencies. Sediment reduction has occurred primarily through the County Sediment Control Program, a procedure for incorporating erosion and sediment control into subdivision plans.

Unfortunately this Program, although a very important advance, may not be sufficient; as reduction in sedimentation of streams has not been readily apparent since its initiation. This may be attributed to the short time the controls have been in effect. Measurements and observations to determine the effectiveness of the program should be undertaken at frequent intervals. If desired results are not being obtained, steps must be taken to strengthen the requirements.

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<sup>17</sup>U.S. Department of Interior, The Creek and the City, (USGPO, Washington, D.C. n.d.) page 20.

<sup>18</sup>M-NCPPC, Sediment Control Program for Prince George's County, Maryland, September, 1968.

#### GUIDELINES

- \*\*1. UTILIZE SEDIMENT AND EROSION CONTROL PRACTICES DURING CONSTRUCTION.
- \*\*\*2. LIMIT CONSTRUCTION ON SOILS NOT SUITED FOR URBAN DEVELOPMENT.

#### Pollution

Pollution of our streams and rivers is one of the most important conservation problems in the County today. It destroys major natural assets - streams, wetlands, fish and wildlife.

The subject of water pollution is discussed at some length in the Environmental Element of the 1964 General Plan assessment and thus, will not be elaborated in this report.

#### The 1964 General Plan

The 1964 General Plan placed considerable emphasis on the need for solution of Conservation problems. The Plan stressed the importance of the prevention of floods, excessive runoff and soil erosion and the safeguarding of public water supplies. To achieve these goals, the Plan proposed 1) large and small reservoirs, 2) parkland, 3) rural zoning and 4) conservation zoning.

The first two of these recommendations are presently being carried out, but the latter two have not been effectuated. Two large reservoirs have been constructed with a third presently underway. Additional potential reservoir sites have also been designated.

The Plan further stated that the proposed corridor-wedge pattern "offers significant opportunities for a new approach to flood and silt control. Small dams to catch silt and control storm water could be located on streams draining the runoff from the urban corridor."<sup>19</sup>

The Park and Planning Commission has greatly assisted in the protection of conservation resources through the stream valley park acquisition program. The Patuxent River Park (being partly acquired by the State) will contribute immensely to the protection of this River, its tributaries and wetlands.

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<sup>19</sup>Ibid.

The General Plan discussed the problems of soil erosion in urbanizing areas as contrasted with rural areas. "It is obvious that land covered to a substantial degree by rooftops and impervious pavements will have vastly different run-off and erosion conditions than land in rural areas, and that new techniques and special ordinances are required by our present day civilization. Much work remains to be done in this field, though substantial studies of the special problems involved are now being advanced in the Washington Area.<sup>20</sup>

## VI. INTEGRATING DEVELOPMENT WITH NATURE

The retention of regional conservation values, as discussed in the previous section of this report, will occur primarily in undeveloped portions of the County region. These regional values including unique scenic vistas, plant and wildlife areas, wetlands, etc., exist primarily in rural areas, as development has destroyed those once located within the urban ring. Unfortunately, weekends are the only time these natural features may be visited by most residents. Conservation, although previously confined to preservation of these outlying natural areas, has now expanded its concerns to meet today's urban and suburban needs.

Nature must be brought close to the people where it may be appreciated daily and may enhance their environment. Many psychologists have asserted that the incorporation of nature and open space into urban areas is essential to the mental well being of city residents. The urban areas of today, including the centers of large suburbs, are a sea of asphalt--parking lots, neon signs, apartments, and gas stations. This situation does not have to continue. Nature can easily be incorporated into both developing and existing urban areas.

Today, with expanded technology, great population acceleration, and increasing urbanization and social problems, the links between man and nature have become very weak. Development and nature actually complement each other and can occur compatibly.

### OBJECTIVE

**\*\*G. PROVIDE FOR DEVELOPMENT IN URBAN AND SUBURBAN AREAS THAT RETAINS ECOLOGICAL FEATURES AND IS COMPATIBLE WITH GOOD CONSERVATION PRACTICES.**

### Natural Features in Developing Areas

During the development process, natural features such as trees, streams, wooded slopes and scenic areas may be easily retained in suburban and urban areas for the enjoyment of their visitors and residents.

In suburban areas, developers may cluster structures on a portion of the property, leaving the stream valleys and other natural features to enhance the subdivision, providing recreation opportunities and visual enjoyment. By building permanent conservation open spaces into residential developments, the need for additional local recreation facilities may also be reduced.

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<sup>20</sup>M-NCPPC, On Wedges and Corridors - A General Plan for the Maryland-Washington Regional District (1964), p.49.

Although suburban residential developments provide the greatest opportunity for conservation of natural features, preservation must also occur in very urban areas. Prior to the development of downtown areas, a careful analysis of existing natural features must be made. For example, a new commercial development being constructed on a tree-covered site should build tree retention into the site plan, utilizing trees to enhance pedestrian walks, central malls and parking lots. Astute developers can capitalize on natural features, building them into attractions that increase the value of the development.

Developers should also increase the height of buildings and reduce site coverage, leaving space for landscaping and natural feature retention.

#### GUIDELINE

- \*\* 1. IN DEVELOPING AREAS, ENCOURAGE RETENTION OF TREES, STREAMS, AND OTHER ECOLOGICAL FEATURES, EDUCATING DEVELOPERS TO CAPITALIZE UPON THESE NATURAL AREAS AT SMALL-AS WELL AS LARGE-SCALES.

\*\*\*\*\*

#### Nature in Existing Urban Areas

Natural features have been completely eliminated in the development of most existing urban areas, leaving wide unbroken expanses of concrete and asphalt. Excessively wide sidewalks abut storefronts without a speck of green to provide relief.

Conservation is normally thought of as preserving natural features currently in existence. The re-creation of nature in urban areas can also be a function of conservation, however, according to progressive thinkers in this field.

In already developed areas, the integration of small natural features can be accomplished without too much difficulty. Portions of excessively wide sidewalks can be removed to provide narrow space for shrubs, flowers and trees. Where absolutely no space is available, trees and flowers may be placed in planters and still serve the purpose of bringing a touch of nature into the urban core. The importance of including natural features in urban areas is also discussed in the aesthetics and urban design chapter of the Environmental Element - another background report included in the assessment of the 1964 General Plan.

#### GUIDELINE

- \*\*\* 2. INCORPORATE NATURAL FEATURES INTO EXISTING URBAN AREAS TO PROVIDE THE URBAN DWELLER WITH A SENSE OF NATURE AND DIVERSITY.

\*\*\*\*\*

#### High Quality Living Environment

Conservation is instrumental in preserving an environment more fit for man to live in. Conservation can assist in retention of environmental health by reducing air and water pollution and maintaining soil and water in a productive state. The impact of high densities and lack of environmental space on the quality of human life has been related to many mental and physical diseases. The retention of natural features increases the feeling of environmental space and creates an essential element of diversity. From health, space, and diversity follow a fourth characteristic--beauty. This is the undefinable result of the efforts of conservation to preserve the quality of the environment. It is the harmonious achievement of environment providing the maximum livability for all species of animal and plant life.

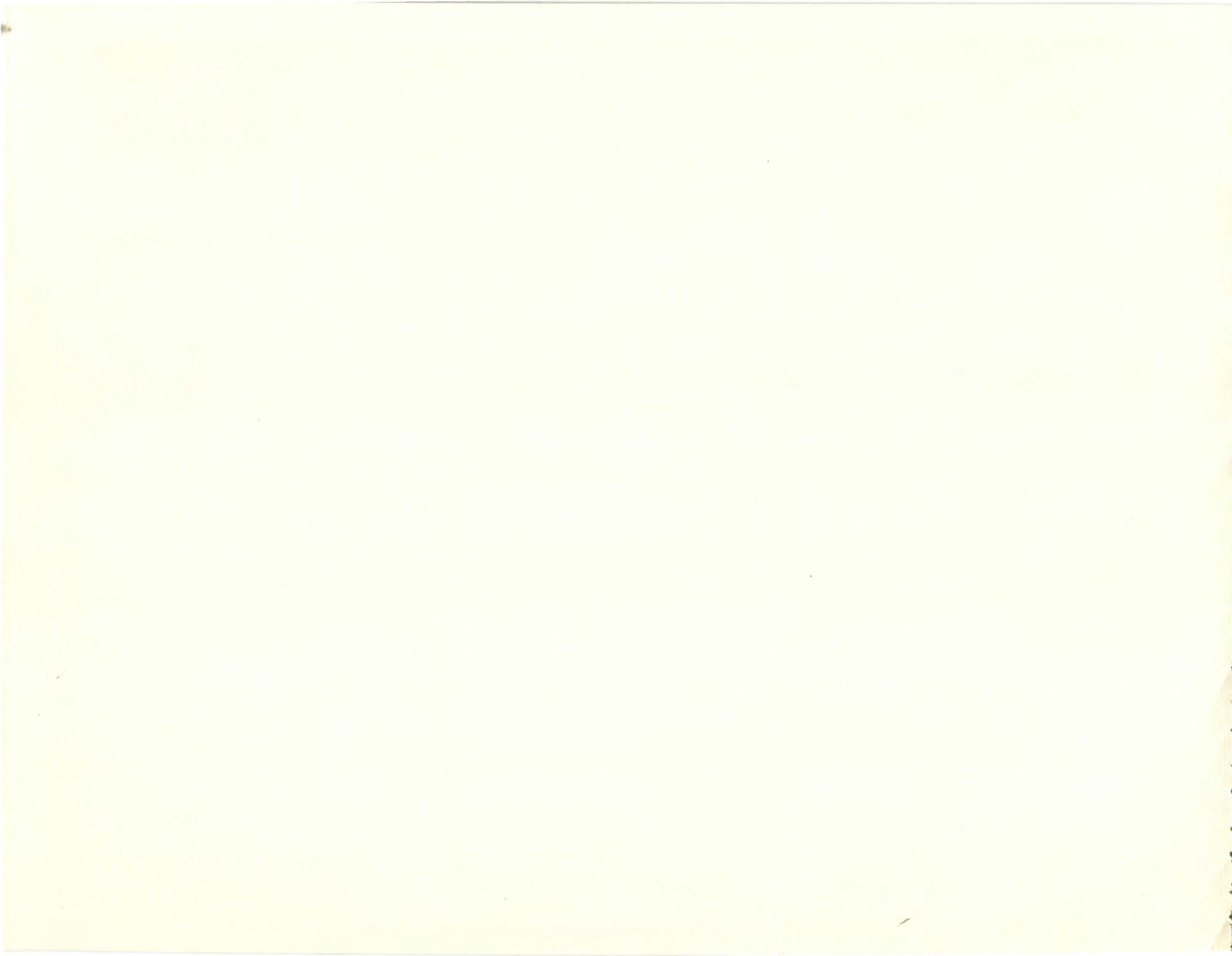
#### GUIDELINE

- \*\*\* 3. UTILIZE CONSERVATION TO MAINTAIN A HIGH QUALITY LIVING ENVIRONMENT THROUGH INCREASED HEALTH, SPACE DIVERSITY, AND BEAUTY.

#### The 1964 General Plan

The 1964 General Plan discussed conservation only in the rural areas. Conservation, once primarily a country matter, today has expanded to include a concern for a quality living environment within urban areas.

The preservation of natural features in urban and suburban areas is thus an essential innovation in the field of conservation. Consideration of these features must be incorporated into all phases of the planning and development process and therefore included as an amendment to the 1964 General Plan.



ENVIRONMENTAL ELEMENT

This section of the report was prepared by Jorge A. Valladares, Principal Engineer; David Sobers, Environmental Planner; Mrs. Tanya Schmieler,\* Senior Planner; and David Durham, Urban Designer.

\* - Resigned November 24, 1969



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## I. INTRODUCTION

Planning for an optimum environment has become one of the most important concerns of present day society. The problems of pollution are readily evident to anyone living in an urbanized and industrialized society. The air, water and soil are capable of assimilating so much waste ... and then destruction. Such environmental destruction threatens not only plant and animal life but human life as well. There are important indications at the federal, state and local level that a concerted effort will be made to assure present and future generations a healthful and aesthetic place in which to live and prosper.

The intent of this background report is to focus attention on specific environmental subjects that should be considered in any general plan, and particularly, the General Plan for Montgomery County. The environmental element will be evaluated under six sub-element headings; namely: water and sewerage systems; other utility systems; water resources; air and noise pollution; solid waste, and aesthetics and livability.

Water, sewerage and other utility systems provide basic building blocks for a modern, growing community. It is, therefore, of paramount importance that these systems be developed in a manner and magnitude sufficient to support the growth envisioned in the General Plan and, together, must preserve and enhance the environment. The other sub-elements--water resources, air and noise pollution, and solid waste--reflect the problems associated with pollution of the water, air and soil.

This report discusses select environmental issues which are believed to be basic and critical to Montgomery County. The information pertaining to the environmental element contained in the 1964 General Plan, as amended by area master plans is reviewed and discussed. Based on this review, the critical environmental issues are discussed. Revised or new goals, objectives, guidelines and appropriate standards are proposed for the General Plan.

## II. ENVIRONMENTAL ELEMENT EVALUATION

A growing population, concentrating itself for the most part in large metropolitan areas, greater mechanization, urban sprawl and a no-deposit-no-return, throw-away container concept has created havoc with the natural environment. The resources of air, water and soil begin to show the effect of neglect in many areas of the country. Faced with the reality of polluted water, air and soil, and seeing the effect on plant, animal and even human life, many intelligent people realize the time for action is now. Led by the Federal Government, an attack has begun in the State of Maryland on the problems associated with air pollution, water pollution and solid waste. Attempts are being made to combine sound planning in each county with water and sewerage systems planning via the Comprehensive Water and Sewerage Plan. This plan will become a valuable tool to guide development and will be reviewed and revised each year, as necessary.

With leadership from the Public Service Commission (PSC) of the State of Maryland unsightly overhead electrical and communications lines will be underground in the future. The PSC requires that all new residential development place lines underground as of July 1, 1968. All new commercial and industrial development must have underground distribution lines as of October 1, 1969. In water resources, the State of Maryland prepared regulations (Water Resource Regulation 4.8) dealing with general water quality criteria and specific water quality standards for all Maryland waters effective June 30, 1967.

In air pollution, new criteria are being developed by the Federal Government and standards are being set by the State Health Department. In noise pollution, grant requests for study of the problem are being prepared by the Metropolitan Washington Council of Governments. In solid waste, Montgomery County should prepare a progressive program to meet the problem. Studies have been prepared, such as the Black and Veatch Solid Waste Study, 1967, which can be used to develop local and regional programs.

There are many ways a governmental agency can assist in providing an optimum environment. Judicious land use planning, dissemination of information, the preparation of appropriate legislation, and liaison with other agencies are just a few of the methods that would be appropriate.

COMPARISON OF GENERAL PLAN POLICY STATEMENTS WITH THOSE OF OTHER REPORTS

Report of the Montgomery County "Committee of Fourteen" to Evaluate the General Plan

In the Ad Hoc Committee Report, the first recommended goal is to "use land efficiently". The corresponding environmental goal in the General Plan states "facilitate the orderly and efficient arrangement of public utilities and services". There is a need to amplify these statements to encompass an overall environmental goal related specifically to the sub-elements used for this assessment.

The Ad Hoc Committee's recommended second goal is to "encourage an orderly conversion of undeveloped land to urban use". It is recommended that extensions of primary services, such as sewers, take place in accordance with a comprehensive staging plan relating actual needs to a consolidated and realistic capital budget. This is not adequately presented within the amended General Plan goals, objectives and guidelines.

The Ad Hoc Committee's recommended third goal is to "assure a living environment of high quality". Within this goal are the objectives of eliminating existing sources of pollution and preventing new hazards from being built in order to assure that communities are supplied with clean air and water. Noise pollution is not covered in the Ad Hoc Committee Report.

Another recommended goal in the Ad Hoc Committee Report is to "facilitate the orderly and efficient arrangement of public utilities and services". This latter policy statement is identical to the goal stated in the 1964 General Plan.

A Policy for Parks

The policy for parks includes acquisition of land, the protection of watershed, water supply and reservoirs. This policy is generally consistent with the 1964 General Plan water pollution policy statements, and applies to both environmental and conservation elements objectives and guidelines. It may be appropriate to include in the Parks document a statement regarding use of land for sanitary land fill and later conversion to park use.

Statement of Goals, Purposes and Concepts (Montgomery County)

Montgomery County adopted, as a basis for the Comprehensive 10-year water and sewer plan, a statement of goals, purposes and concepts which are quite specific and enter into greater detail on water and sewer policy statements than does the 1964 General Plan. The Montgomery County statement embodies many of the planning concepts generated by the State's Comprehensive Water and Sewer Plan Law.

ENVIRONMENTAL GOAL STATEMENT

In reviewing the amended 1964 General Plan, the following goal statement is identified:

1. Facilitate the orderly and efficient arrangement of public utilities and services.

This goal statement reflects a policy concerning only water and sewerage systems and other public utilities. Although somewhat vague, it has been only partially implemented. The intent of this statement is still applicable and needs to be reworded and expanded into a single goal for the entire environmental element. Therefore, after thorough analysis, it was found that the following goal statement should be applied to the entire Environmental Element:

Goal

\*\*\* PROVIDE AN AESTHETIC AND HEALTHFUL ENVIRONMENT FOR PRESENT AND FUTURE GENERATIONS.

---

\*\*\*Applies to a new policy statement not contained in the 1964 General Plan.

\*\*Applies to policy statements which are essentially the same as contained in the 1964 General Plan as amended.

\*Applies to policy statements which are direct quotes from the 1964 General Plan as amended.

These three symbols are used throughout this report with the same meaning.

### III. WATER AND SEWERAGE SYSTEMS

#### BASIC CRITICAL ISSUES

The basic critical issues facing Montgomery County in 1969 concerning Water and Sewerage Systems are:

##### •TIMELY PROVISION OF WATER AND SEWERAGE SERVICE•

One of the functions of the amended 1964 General Plan is to promote orderly growth towards a desired land use pattern. Water and sewer service fulfills a vital part of this function by supporting growth where these services are provided. The local health departments want subdivisions and other intensive development to take place on community water and sewer systems. Otherwise, serious health problems can and do develop.<sup>1</sup>

It is, therefore, necessary from a planning and health perspective to extend water and sewer service after an acceptable land use pattern is developed. To do otherwise will only further complicate the problems of urban sprawl and unbalanced land use.

##### •PROPER REGULATION OF THE EXTENSION OF WATER AND SEWER SYSTEMS•

A great deal of new development pivots on the availability of public water and sewer service. It is, therefore, logical to control such services within economic limitations so that development is stimulated only in select areas. Included under this topic is the question of limited access to water and sewer lines as provided by the State Law.<sup>2</sup> The limited access concept allows the County Council to deny access to water or sewer lines based upon a planning objective,

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<sup>1</sup>Montgomery County Health Department, Priorities for Public Water and Sewer Extensions in Montgomery County based on Environmental Health Factors. (September, 1968).

<sup>2</sup>Chapter 700 of the Acts of the General Assembly permits designation of controlled or limited access to water or sewer mains within each County.

such as the lack of a land use plan for an area. Such reservation preserves one area and promotes growth in another where such services are available.

Based on the Comprehensive Water and Sewerage Plan, preferential water and sewer service can be indicated.<sup>3</sup> By defining system areas, preference can be given to those areas where development is desired by insuring that water and sewer service is available. Areas falling in the "wedges" may be reserved by not providing water and sewer service within the time span of the Plan.

Care should be taken, however, that the individual entrepreneur is not unduly restricted. The intent of defining water and sewerage service is not to completely control or limit (in the sense of restrict) development, but rather to provide a quantity of developable land sufficient to permit growth without inordinately inflating land prices.

##### •RELATING WATER AND SEWER SERVICE TO CAPITAL IMPROVEMENT PROGRAMMING•

The cost of developing land is, in large measure, a public responsibility, and existing public facility capacities should be evaluated first. Oftentimes, sufficient residual capacity is available in existing water and sewer systems, not to mention other necessary public facilities, to defer further growth beyond the existing urban limits.

The limitations of the public dollar become more apparent as federal and local governments are solicited to provide more facilities in support of a modern, sophisticated society. A decisive move in reducing the cost of a given level of public facilities is through timed construction of water and sewer systems.

It is quite evident that roads, libraries, and schools are provided to complement urban development. Therefore, sewer and water service should be coordinated with other public facilities to insure the maximum benefit for the taxpayer's dollar.

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<sup>3</sup>Paragraph 387, Article 43 of the Annotated Code of Maryland.

•ALTERNATIVE WATER AND SEWER SYSTEMS•

There are ultimate limitations to the extension of massive water and sewer systems over large land areas. A point of negative return is reached where the value of the service does not equal or even approach the cost of providing water and sewer service. Further, the extension of water and sewerage facilities to peripheral areas has historically led to prematurity in development.<sup>4</sup>

Where health and planning needs dictate provision of public water and sewer service to fringe or remote areas, alternative systems need to be weighed in the decision making process. Sewage lagoons, vacuum sewage systems, and central or package sewage treatment plants have proven to be a highly satisfactory means of treating sewage effluent on a local basis. The costs of a local system compared with those of a sewer line and other public facilities along such a line may well tip the balance in favor of a local system.

Water service may also be handled in a limited fashion where a series of wells, pumps, storage facilities, and treatment mechanisms can be furnished. The cost and liabilities, in terms of new associated public facilities, must be considered in assessing localized water supply problems.

•ADEQUATE FUTURE WATER SUPPLY•

Water supply experts predict a critical water shortage in the near future if sufficient sources of raw water are not available for Metropolitan Washington's growing demands. Present water supply is normally adequate in satisfying the population's needs. However, the adequate water supply question becomes more acute during drought periods when the Potomac River, the main water supply for the Washington area, reaches a low flow point. Water supply is a regional problem and must be viewed from that perspective. Current and future solutions need to be analyzed to possibly include the installation of reservoirs in the Potomac River Basin, use of ground water, desalinization, waste water reuse, and individual water storage.

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<sup>4</sup>Specific examples of this are given later in the discussion of this sub-element.

POLICY STATEMENTS OF THE 1964 GENERAL PLAN

The 1964 General Plan as amended recognized the importance of water and sewer service to the development of the County (Figures 1 and 2). This section examines the objectives and guidelines as they appeared in the General Plan and adopted Area Master Plans. Each statement is briefly analyzed to determine current status, present applicability and needed revisions. Overlapping and redundancy was found in these policy statements, particularly in sewer policy and capital improvement program review.

OBJECTIVES

1. The increased public costs required to bring services to scattered subdivisions should be avoided by not allowing such developments to spring up in areas where the necessary services cannot be efficiently provided.

This objective has not been implemented but is still applicable and necessary. Mechanisms to achieve this objective are currently underway and include the 10-Year Comprehensive Water and Sewerage Plan, and the development of staging implementation devices.

2. Use limited access sewers to give adequate service to urban areas without encouraging urbanization in rural areas.

This objective has been partially implemented in Montgomery County for sewer service only. The wording of this objective needs improving.

3. Water lines should be provided wherever necessary, but always in direct relation to the population distribution recommended by the General Plan.

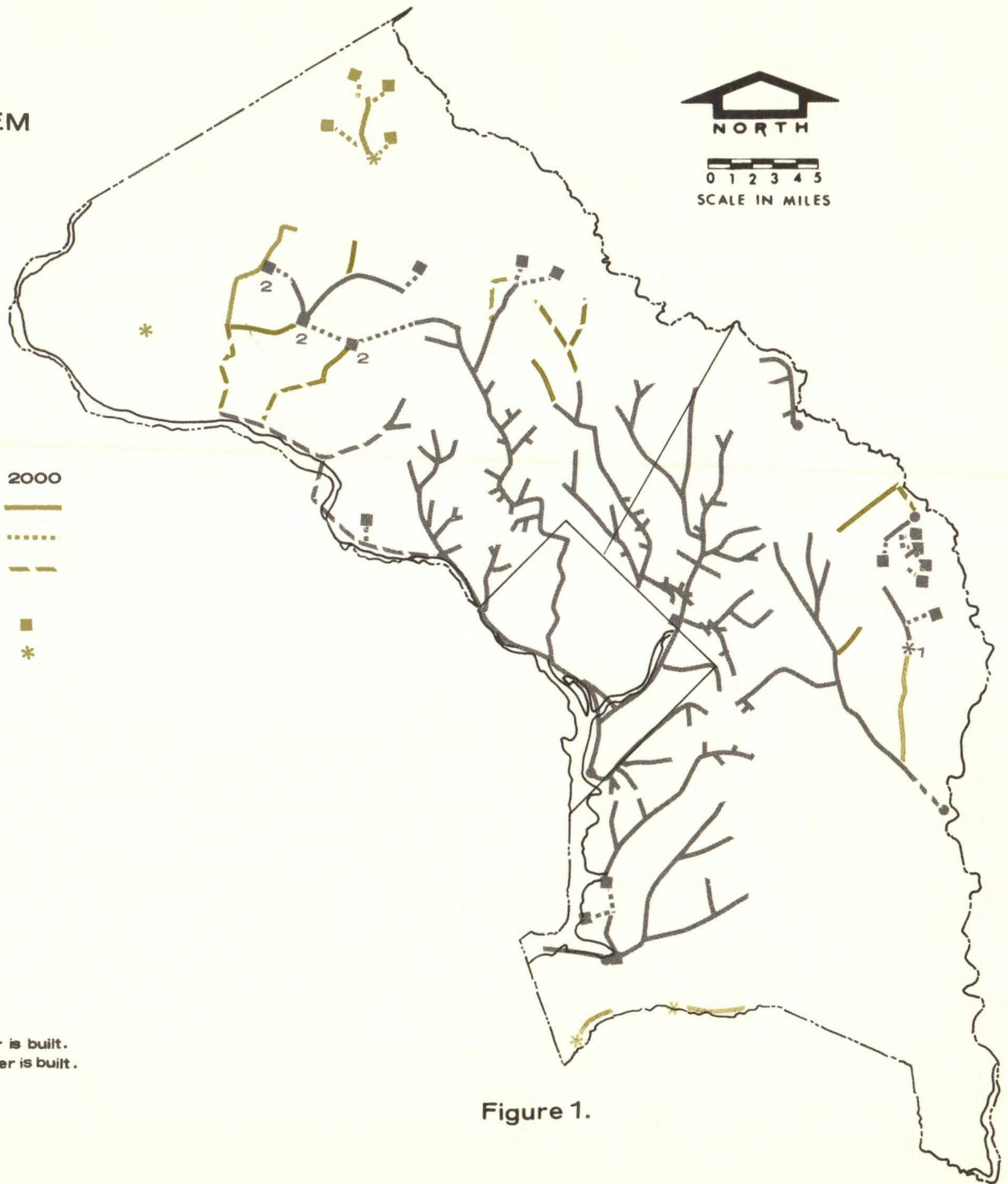
This objective is applicable but has not been fully implemented. It needs to be combined with the policy statement on the availability of sewer service policy statement.

# STAGED SANITARY SEWER SYSTEM

## PROPOSED IN THE 1964 GENERAL PLAN



	1970	1980	2000
MAJOR SEWER			
FORCE MAIN			
LIMITED ACCESS SEWER			
TREATMENT PLANT			
PUMPING STATION			
SEWAGE LAGOON			



Note: 1 Sewage lagoon to be abandoned when downstream sewer is built.  
2 Pumping station to be abandoned when downstream sewer is built.

Source: M-NCPPC General Plan

Figure 1.

# WATER, GAS AND ELECTRICITY PROPOSED IN THE 1964 GENERAL PLAN

- WATER SYSTEM**  
Major Main ———  
Treatment Plant ▲  
Pumping Station ■  
Storage ●
- TRANSMISSION LINES**  
Gas - - - - -  
Electric ———
- GENERATING PLANT** ⊙

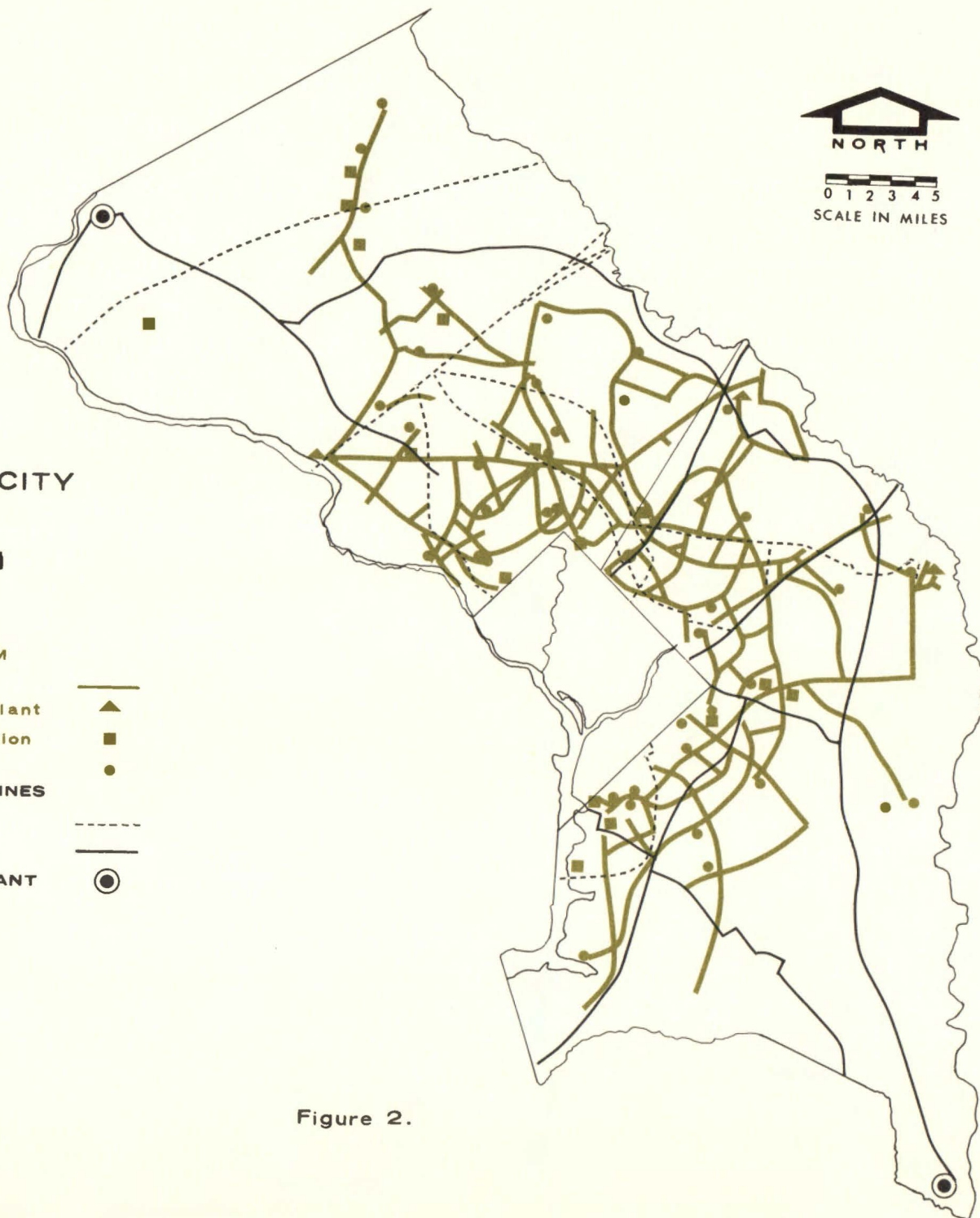


Figure 2.

4. Trunk sewers should be extended to areas ready for urbanization when needed, neither too early nor too late for the orderly sequence of growth.

This objective has been partially implemented. It is still applicable but should be combined with a similar policy statement on water service.

5. Wherever possible, the construction of sewer lines across rural zones should be avoided; where such crossing must be made, service connections which would encourage urban development should be prohibited by the use of limited access sewers.

This objective has been partially applied in Montgomery County. This objective needs to be rewritten and combined with a water service policy statement.

#### GUIDELINES

1. Review all Federal, State, local and utility capital improvement projects to help assure conformance with adopted master plans.

Effort is being made to implement this guideline in Montgomery County. This statement needs to be enlarged in scope and rewritten to express the County requirements.

2. Improve procedures for preparing and reviewing long-range capital improvement budgets.

This guideline has been partially implemented in Montgomery County. It needs to be combined with other policy statements of the General Plan, such as the first guideline above.

3. Use the General Plan as a major criterion in county reviews of programs for the extension of water and sewer lines.

Effort is being made to implement this guideline. This statement should be reworded and combined with other policy statements.

4. Limit access to sewers where rural areas must be crossed.

This guideline has been partially implemented. This guideline needs to be rewritten and combined with other policy statements and expanded to include water service.

5. Continue and strengthen individual reviews of mandatory referrals.

This guideline has not been fully implemented and should be combined with other policy statements of the General Plan to reflect the regional concept.

6. ACTION: 1) Expand the "suburban district" in both counties to coincide with the area in which urbanization has or is taking place, or is about to take place.

This guideline has not been implemented as stated but has been superseded by the proposed "development district" concept. The statement should be rewritten to make it conform with the new concept.

7. ACTION: 1) Amend the Regional District Act to clearly designate violations of mandatory referral provisions as misdemeanors, and to require public statements in writing from the responsible government agency or utility company giving the reasons for projects undertaken contrary to Park and Planning Commission recommendations. 2) Amend appropriate State legislation to require all costs for the relocation of projects undertaken without the approval of the Park and Planning Commission to be paid by the agency or utility responsible for the undertaking.

A proposed bill to implement this statement has failed to pass the Maryland State Legislature each of the last two years. This is not a guideline but rather an implementation technique.

#### RECOMMENDED OBJECTIVES, GUIDELINES, AND STANDARDS

Water and sewer systems have received considerable attention in the past and will receive even greater attention in the future. The basic concern is to provide water and sewer service, as well



as other supporting public facilities, in such a way as to achieve a desired land use pattern.

The guidance of sound planning should precede development. Water and sewer service has not consistently followed sound planning principles as envisioned by the 1964 General Plan.<sup>5</sup> All too often, water and sewer extensions respond to private localized demand that is in conflict with the objectives of good planning. The desire is to stimulate development in a positive fashion, in areas compatible with the General Plan concept.

Hopefully, such development will occur not only in areas receptive for growth, but in a sequential manner as well. This sequential manner refers to providing the other public facilities, such as roads and schools, in concert with water and sewer service. This note of coordination is an economic necessity in supporting a modern society.

\*\*\*\*\*

#### OBJECTIVE

- \*\* A. PROVIDE FOR THE OPTIMUM USE OF PUBLIC FUNDS BY TIMELY SCHEDULING OF WATER AND SEWERAGE SYSTEMS.

Scattered subdivisions and other building activity cause increased public expenditures for providing the necessary access roads, storm sewers, and schools. The consolidation and staging of development, on the other hand, permits economies of scale. It is most important that water and sewer service be available to support this sequential growth in select areas and be absent from other areas where the growth would be viewed as premature or not desired.

The stress upon the public dollar demands the most benefit from the least cost. Consolidation of development translates, in most cases, to smaller road networks, less costly water and sewer

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<sup>5</sup>The following areas in Montgomery County are cited as examples of development which has occurred not in harmony with the 1964 General Plan as a result of zoning amendments, subdivision approval, and untimely provision of water and sewer and other public facilities: along Hawkins Creamery Road; the Damascus area; Patuxent Basin area; and the Olney area.

construction, and similar savings on other facilities. Consequently, the public spends fewer dollars to receive the services now accepted as necessities.

The following guidelines and standards are suggested as a means for insuring the optimum use of public funds through timely scheduling of water and sewerage systems.

#### GUIDELINES

- \*\* 1. DISCOURAGE DEVELOPMENT REQUIRING MAJOR WATER AND SEWER SERVICE, WHERE SUCH SERVICES CANNOT BE EFFICIENTLY PROVIDED.
- \*\*\* 2. PROVIDE WATER AND SEWERAGE SERVICE IN AREAS WHERE DEVELOPMENT IS DESIRABLE.
- \*\*\* 3. REQUIRE THOSE WHO BENEFIT FROM WATER AND SEWERAGE SERVICE EXTENSIONS TO A NEW AREA TO PAY THE PROPORTIONATE SHARE OF BOTH THE CAPITAL AND OPERATING COSTS.
- \*\* 4. ENCOURAGE PLANNED CLUSTERED DEVELOPMENT SO AS TO PROVIDE WATER AND SEWER SERVICE FOR THE LEAST POSSIBLE COST.
- \*\* 5. EXTEND COMMUNITY SEWER SERVICE TO AREAS TO BE URBANIZED IN THE DESIRED SEQUENCE OF GROWTH.

#### STANDARDS

- 1. REQUIRE LOCAL WATER AND SEWER SYSTEMS BE NEAR FULL UTILIZATION BEFORE PROVIDING NEW, SIMILAR SERVICES ELSEWHERE.
- 2. REQUIRE THAT PRIMARY WATER AND SEWER SYSTEMS BE DESIGNED FOR A MINIMUM 25 YEAR PERIOD.

\*\*\*\*\*

#### OBJECTIVE

- \*\*\* B. PROVIDE ADEQUATE WATER AND SEWERAGE SERVICE.

The General Plan thesis is to achieve a given land use pattern in a sequential fashion. Development of land is contingent upon the availability of public water and sewerage service.

It is, therefore, of great importance to insure that these services are available or programmed in areas where development is desired. The General Plan calls for development in the Corridors and preservation of the Wedges for conservation, parks, and low density growth.

Several mechanisms are available that allow the designation and enforcement of specific areas to be served. Under the Six-Year Water and Sewer Capital Improvements Program Law,<sup>6</sup> limited access to sewer and water mains can be designated. Community water and sewerage system areas may also be accurately assigned under the provisions of the Comprehensive Water and Sewerage Plan Law.

Where community service is required in outlying areas of the county, there are local or package systems that might be employed. These central units are often more economical to provide than extending the basic water or sewer facilities. They have definite planning advantages, since service can be offered without stimulating undue growth in areas where development is not desired.

Water supply is a major problem facing the Washington Metropolitan region. The Potomac River is the primary source of water for this area. In the summer of 1966, when the River reached a low flow point of 374 million gallons per day (MGD) rationing of water occurred. The record high withdrawn from the River was 381 mgd, also in 1966. The threat of another "water squeeze" almost occurred during the summer of 1969. Fortunately, the weather patterns produced sufficient rain to increase the River's flow. However, without some water storage in the Potomac River Basin, a severe water shortage may occur. The problem will be further compounded by the rapid population growth in this region.

The following guidelines are suggested as a means of attaining this water and sewerage objective.

#### GUIDELINES

- \*\* 1. PROVIDE WATER OR SEWER SERVICE WHEREVER NECESSARY IN DIRECT RELATION TO THE PLANNED POPULATION DISTRIBUTION.
- \*\* 2. USE THE GENERAL PLAN LAND USE DEVELOPMENT POLICY AS THE MAJOR CRITERION FOR PROVIDING WATER AND SEWER SERVICE.

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<sup>6</sup>Chapter 700, Acts of the General Assembly (1969)

<sup>7</sup>Paragraph 387, Article 43, Annotated Code of Maryland.

- \*\* 3. DESIGNATE WATER AND SEWER MAINS AS CONTROLLED OR LIMITED ACCESS FOR SERVICE TO SELECT AREAS WITHIN EACH COUNTY.
- \*\*\* 4. WITH THE EXCEPTION OF EXISTING HEALTH PROBLEMS, PROVIDE WATER SERVICE ONLY TO THOSE AREAS CURRENTLY SERVED WITH COMMUNITY SEWERS OR PROPOSED TO BE SERVED WITHIN 10 YEARS.
- \*\*\* 5. USE LOCAL COMMUNITY WATER SYSTEMS IN OUTLYING AREAS WHERE EXTENSION OF THE EXISTING COMMUNITY WATER SYSTEM WOULD CONSTITUTE AN ECONOMIC, PLANNING, OR ENGINEERING OBSTACLE.
- \*\*\* 6. USE LOCAL COMMUNITY OR PACKAGE TREATMENT FACILITIES IN OUTLYING AREAS WHERE EXTENSION OF THE EXISTING COMMUNITY SEWERAGE SYSTEM WOULD CONSTITUTE AN ECONOMIC, PLANNING, OR ENGINEERING OBSTACLE AND WHERE DISCHARGE EFFLUENTS COMPLY WITH DEPARTMENT OF WATER RESOURCES STANDARDS.
- \*\*\* 7. REQUIRE SEPARATE SYSTEMS FOR SANITARY SEWAGE AND STORM WATER IN ALL DEVELOPMENT.
- \*\*\* 8. PROVIDE AN ADEQUATE SUPPLY OF HIGH QUALITY WATER FAVORABLE TO INDUSTRIAL AND COMMUNITY GROWTH.
- \*\*\* 9. INSURE A SUFFICIENT EMERGENCY SUPPLY OF WATER FOR DISASTER OR EMERGENCY SITUATIONS.
- \*\*\*10. UTILIZE GROUND WATER TO THE MAXIMUM EXTENT POSSIBLE FOR PROVIDING WATER SUPPLY.
- \*\*\*11. ESTABLISH DAM SITES IN THE POTOMAC RIVER BASIN TO ASSURE AN ADEQUATE SUPPLY OF WATER (Figure 3).
- \*\*\*12. INSURE THAT THE PATUXENT RIVER IN MONTGOMERY COUNTY IS OF SUFFICIENT QUALITY TO SUPPORT: A PUBLIC OR MUNICIPAL WATER SUPPLY, WATER CONTACT RECREATION, THE PROPAGATION OF FISH AND AQUATIC LIFE, AND AGRICULTURAL WATER SUPPLY.

#### STANDARDS

- 1. BUILD MAJOR SEWAGE TREATMENT FACILITIES FOR TERTIARY TREATMENT (ADVANCED WASTE TREATMENT).
- 2. TREAT WASTE WATER ENTERING THE PATUXENT RIVER SUFFICIENTLY TO REMOVE 94% AND 96% OF THE ORGANIC SUBSTANCES FOR SEWAGE LOADS UP TO THE YEAR 1980 AND YEAR 2000, RESPECTIVELY.

# RECOMMENDED RESERVOIRS



FIGURE 3

SOURCE: The Metropolitan Washington Council of Governments in 1969-70

3. PROVIDE ADDITIONAL WATER TREATMENT PLANT CAPACITY BASED ON AN ESTIMATED DEMAND FIVE YEARS IN THE FUTURE.
4. USE WATER RESOURCES REGULATION 4.8 WHICH PROVIDES STANDARDS FOR ALL MARYLAND WATERS INCLUDING BOTH GENERAL AND SPECIFIC WATER QUALITY CRITERIA.

\*\*\*\*\*

#### OBJECTIVE

- \*\*\* C. PROVIDE WATER AND SEWERAGE SYSTEMS THAT EMBODY THE HIGHEST TECHNOLOGICAL AND AESTHETIC STANDARDS.

Water and sewerage systems should be designed and constructed to have the highest achievable health and aesthetic standards. Although technological and economic constraints may limit the standards applicable to current development, provisions should be made to incorporate improvements as they become available. As an example, tertiary sewage treatment systems should be a future requirement. Although the tertiary systems may not be currently feasible, the necessary land should be set aside and existing secondary systems designed to employ them as they become available.

Sewage plants should be pleasant appearing structures, buffered by vegetative plantings, with provisions for odor controls and prompt sludge disposition. Water supply sources should be located in conservation areas, distant and protected from sources of pollution. Pumping stations and water storage tanks should be placed underground or blend with the surrounding environment.

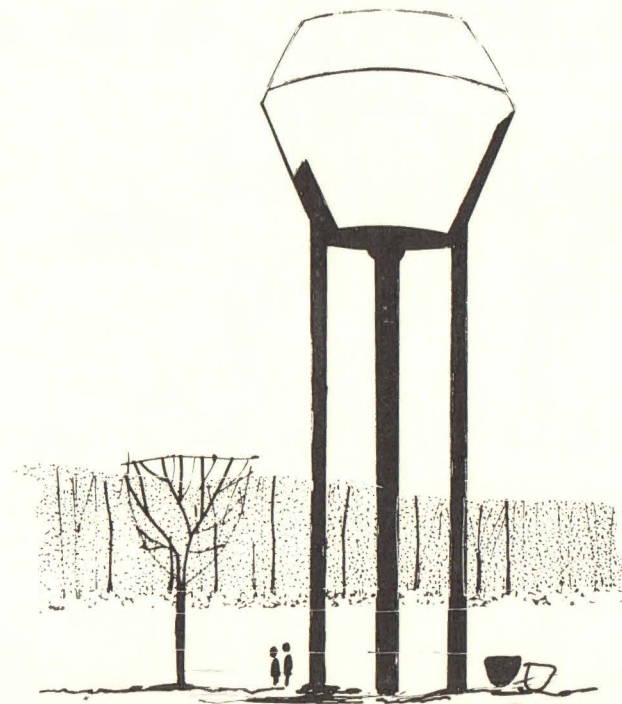
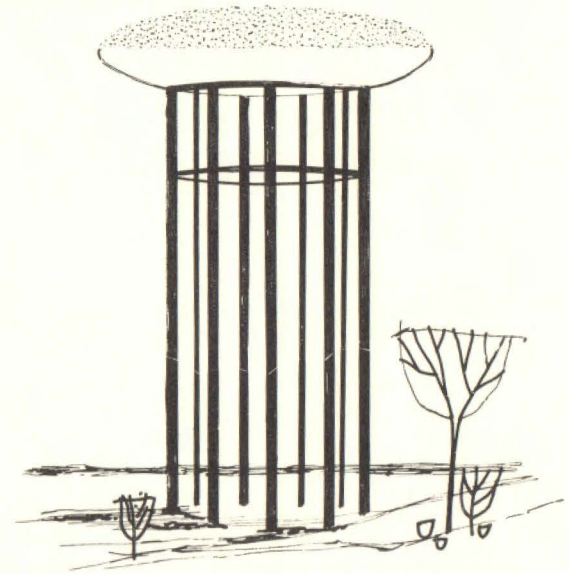
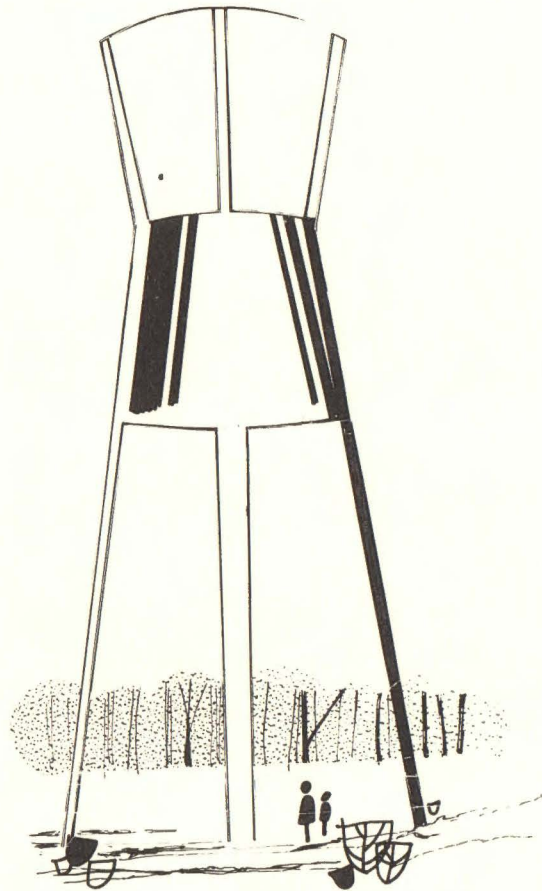
#### GUIDELINES

- \*\*\* 1. PROTECT SOURCES OF WATER SUPPLY FROM POLLUTION.
- \*\*\* 2. ACQUIRE SUFFICIENT LAND FOR SEWAGE TREATMENT FACILITIES TO PROVIDE FOR FUTURE EXPANSION INCLUDING TERTIARY TREATMENT FACILITIES TO PROVIDE FOR BUFFER PLANTINGS, AND TO PROVIDE FOR SLUDGE DISPOSITION.
- \*\*\* 3. LOCATE BOOSTER PUMPING STATIONS IN SMALL ATTRACTIVELY DESIGNED BUILDINGS.
- \*\*\* 4. USE EXCEPTIONAL DESIGN STANDARDS FOR ELEVATED TANKS, STANDPIPES AND OTHER WATER APPURTENANCES VISIBLE TO THE PUBLIC (Figures 4, 5, and 6).

#### STANDARD

1. REQUIRE ADVANCED WASTE TREATMENT IN ALL MAJOR SEWAGE TREATMENT FACILITIES INCLUDING REMOVAL OF NUTRIENTS.

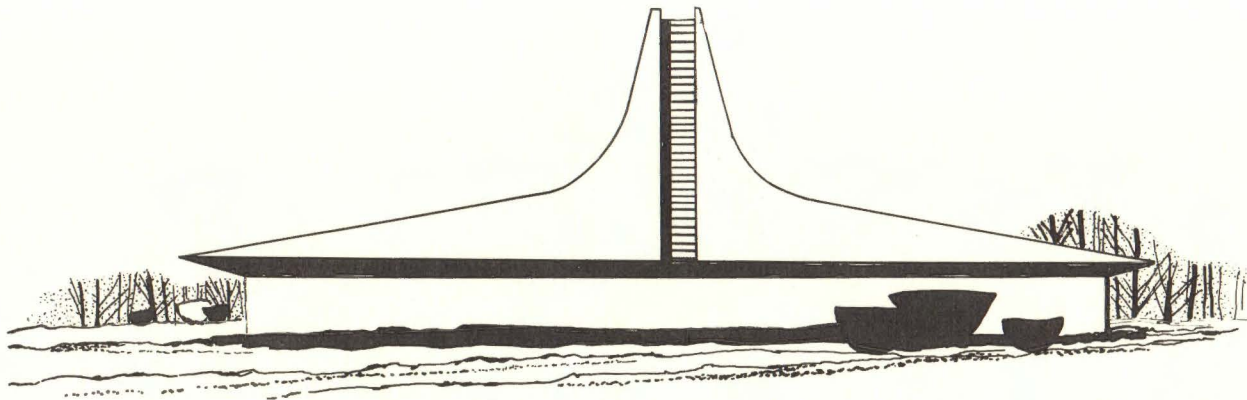
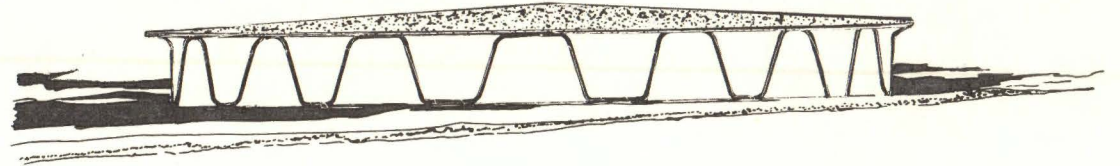
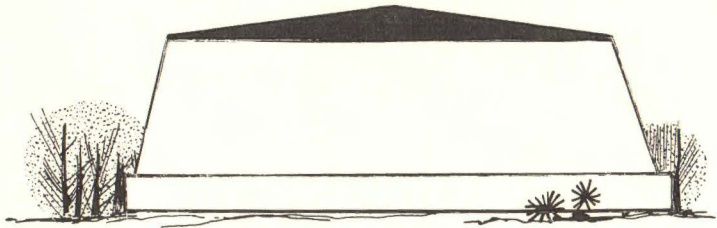
# ELEVATED WATER STORAGE TANK DESIGN CONCEPTS



Source: Design Concepts Water Storage, Committee of Steel Plate Producers, American Iron and Steel Institute, New York

FIGURE 4

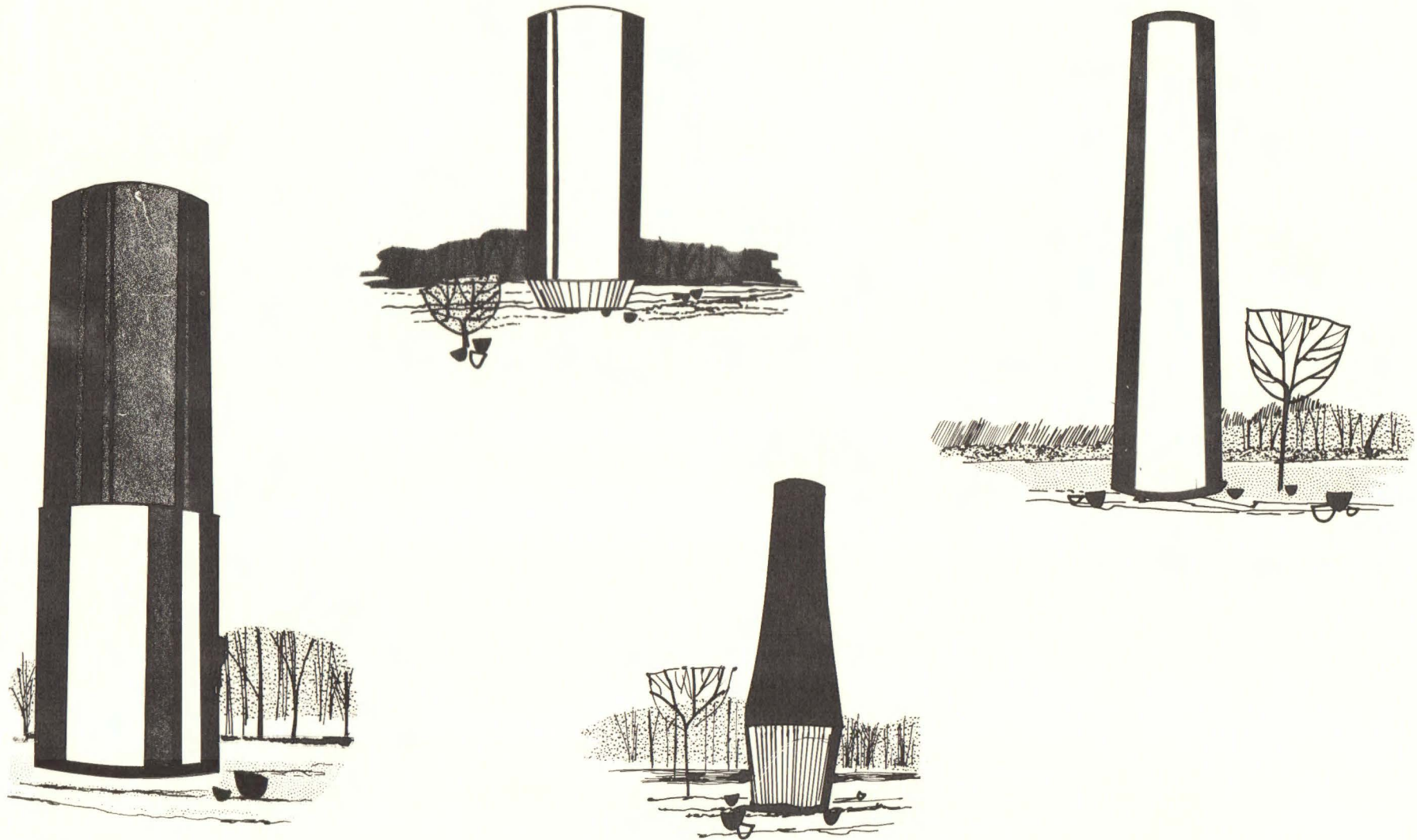
WATER STORAGE RESERVIOR DESIGN CONCEPTS



Source: Design Concepts Water Storage, Committee of Steel Plate Producers, American Iron and Steel Institute, New York.

FIGURE 5

# WATER STORAGE STANDPIPE DESIGN CONCEPT



Source : Design Concepts Water Storage, Committee of Steel Plate Producers, American Iron and Steel Institute, New York

FIGURE 6

#### IV. OTHER UTILITY SYSTEMS

##### BASIC CRITICAL ISSUES

The basic critical issue facing Montgomery County in 1969 concerning this sub-element which includes communication, electrical, and gas utility systems is:

##### •THE ADVERSE IMPACT OF UTILITY SYSTEMS ON THE ENVIRONMENT•

Large transmission lines, distribution lines, water storage tanks, and utility plants have been both a public eyesore and hazard for decades. Recent legislation at both the County and state levels show a great deal of promise in improving the design and location of these facilities. Additional legislation and industrial co-operation is needed to more fully cope with the problem.<sup>8</sup>

##### POLICY STATEMENTS OF THE 1964 GENERAL PLAN

The 1964 General Plan, as amended, did comment on the need for proper utility systems management. However, the emphasis and direction is not sufficient and needs to be expanded.

This section examines the objectives and guidelines as they appeared in the 1964 General Plan and adopted area master plans. Each statement is briefly analyzed to determine current status, present applicability and needed revisions.

##### OBJECTIVES

1. The increased public costs required to bring services to scattered subdivisions should be avoided by not allowing such developments to spring up in areas where the necessary services cannot be efficiently provided.

This objective has not been implemented but is still applicable and necessary.

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<sup>8</sup>The Public Service Commission of Maryland, Electric Underground Extensions, (June, 1968) requires that in all new residential construction, distribution lines be placed underground. New regulations under the same Commission also require underground installation of all new commercial and industrial distribution utility lines as of October, 1969. Larger transmission lines will continue to be placed above ground due to technical and cost limitations.

##### GUIDELINES

1. Strengthen mandatory referral authority over gas and electric utilities to avoid conflicts.

This guideline has not been implemented. It should apply only to major projects affecting the aesthetic environment.

2. Continue and strengthen individual reviews of mandatory referrals.

This guideline has not been fully implemented and repeats the concept of item #1 (above).

3. Encourage the use of underground electrical and telephone wires.

This guideline has been partially implemented by Montgomery County through the zoning ordinance; also the Maryland State Public Service Commission has initiated supporting regulations applicable throughout the state.

4. Review all Federal, State, local and utility capital improvement projects to help assure conformance with adopted master plans.

This statement does not have applicability to communication, electrical, or gas utility systems except where major projects will affect the aesthetics of an area.

5. ACTION: 1) Amend the Regional District Act to clearly designate violations of mandatory referral provisions as misdemeanors, and to require public statements in writing from the responsible government agency or utility company giving the reasons for projects undertaken contrary to Park and Planning Commission recommendations. 2) Amend appropriate State legislation to require all costs for the relocation of projects undertaken without the approval of the Park and Planning Commission to be paid by the agency or utility responsible for the undertaking.



A proposed bill to implement this statement has failed to pass the Maryland State Legislature each of the past two years. This is not a guideline but rather an implementation technique.

#### RECOMMENDED OBJECTIVES, GUIDELINES, AND STANDARDS

The complexity of present day society requires a wealth of support services and utility systems. Water and sewer systems were discussed earlier. Natural gas, electrical, and communication facilities are well integrated into everyday activities. The key to their blending with the natural, aesthetic environment, however, demands the firm establishment and enforcement of appropriate regulations.

Information is available from federal, state, and private agencies on how installation of utility service facilities can be improved. An outstanding example of federal guidance is contained in the "Report to the Vice President and to The President's Council on Recreation and Natural Beauty" by the Working Committee on Utilities (December, 1968).

A recent effort on industry's part to recognize the preservation of environmental values is the formation of the Electric Power Council on Environment. This Council hopes to reconcile problems associated with various utility projects and the federal government or conservation minded groups.

\*\*\*\*\*

#### OBJECTIVE

- \*\*\* D. MINIMIZE THE ADVERSE EFFECTS OF NECESSARY ELECTRICAL, GAS, AND COMMUNICATION SYSTEMS UPON THE AESTHETIC ENVIRONMENT.

Electrical transmission and distribution lines, electrical generation stations, telephone lines, and gas lines have historically been non-aesthetic in design or concept. The Maryland Public Service Commission now requires undergrounding of electric and communication distribution lines on all new residential construction. The Public Service Commission has required underground installation of all new commercial and industrial utility distribution lines since October 1, 1969. This action creates a very important precedent for future necessary legislation to insure that utility services blend with man's environment.

Safety considerations should be incorporated into the design and justification for modifying utility systems. There are excellent examples of public facility design provided by federal, state and commercial experts (see Figures 7 and 8). It is more economical and desirable, for example, to require utility lines to employ the same right-of-way.

#### GUIDELINES

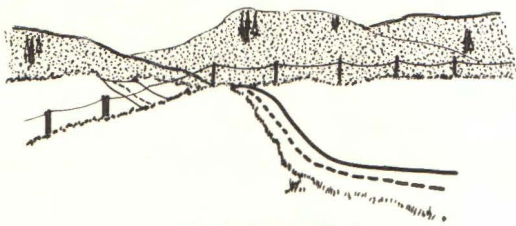
- \*\*\* 1. MAXIMIZE THE USE OF COMMON RIGHTS-OF-WAY FOR UTILITY AND TRANSPORTATION SYSTEMS WHEREVER FEASIBLE.
- \*\* 2. REQUIRE MAXIMUM UNDERGROUNDING OF ALL NEW UTILITIES SYSTEMS.
- \*\*\* 3. CONVERT OVERHEAD DISTRIBUTION LINES TO COMMON UNDERGROUND TRENCHES IN THE OLDER, ESTABLISHED AREAS.

#### STANDARDS

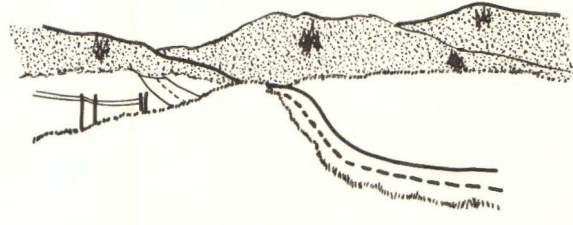
The undergrounding of all utilities should be encouraged. The following general principles are suggested as possible standards for undergrounding:

- (a) sewers, because of their gravity flow requirements, should have first priority, in the utilities rights-of-way;
- (b) trunk lines should not be located in major traffic arteries;
- (c) trunk lines for several utilities should not be located in the same street;
- (d) all installations required within a period of at least five years should be installed before a street is paved, including the service lines to the curb or lot line;
- (e) where the first cost can be justified, tunnels with provision for utilities on the ceiling, walls, or floor of the tunnels should be considered since they provide ready accessibility without cutting the street pavement.

Transmission lines should not cross highway at the crest of a road or bottom of a valley .

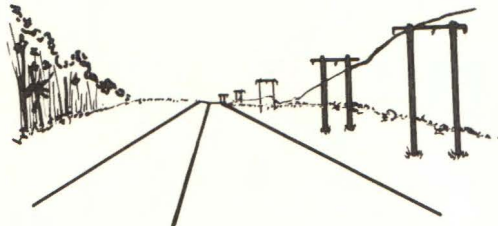


POOR EXAMPLE

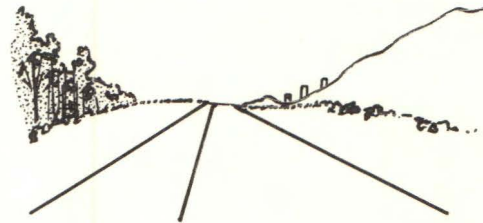


PREFERRED

Long views of transmission lines parallel to highways should be avoided where possible .

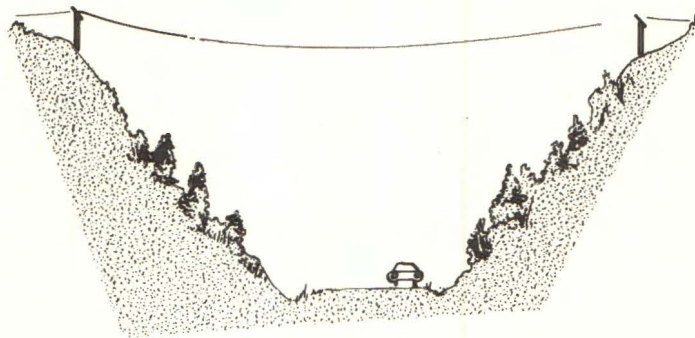


POOR EXAMPLE



PREFERRED

Transmission lines should cross canyons up-slope from roads which traverse the canyon basins if the terrain permits .

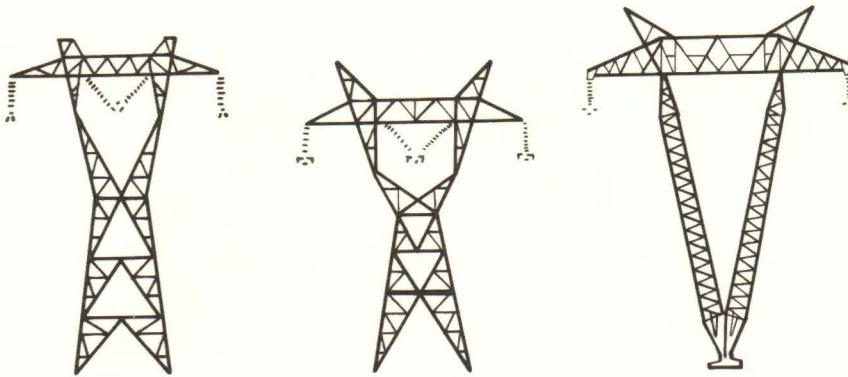


SOURCE: Working Committee on Utilities, Report to the Vice President and to The President's Council on Recreation and Natural Beauty (December, 1968)

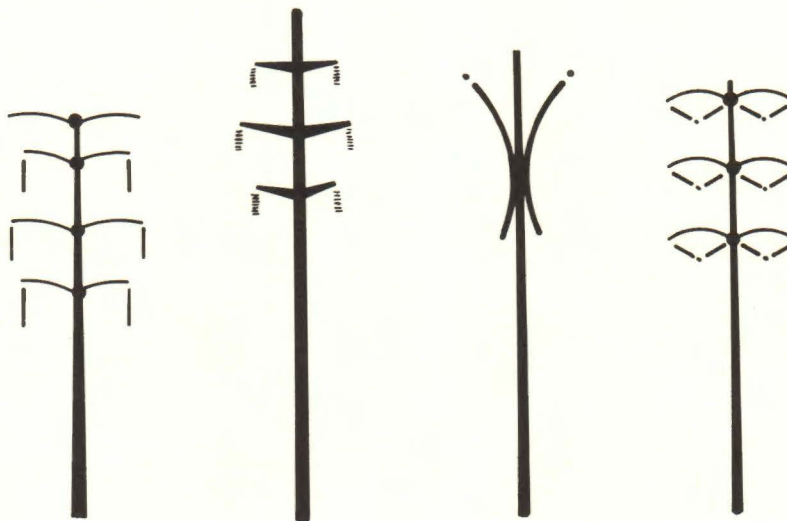
FIGURE 7.

## THE DESIGN OF TRANSMISSION TOWERS

The size of transmission towers should be kept to the minimum .



STANDARD TOWER DESIGNS



NEWER TOWER DESIGNS

SOURCE: Working Committee on Utilities, Report to the Vice President and to The President's Council on Recreation and Natural Beauty (December, 1968)

FIGURE 8.

## V. WATER RESOURCES

Within the past decade, the Federal Government began what will perhaps be recorded as the greatest war on water pollution in the history of the United States. As a result of the Water Quality Acts of 1965 and 1966, higher standards of quality for all of the Nation's water resources became a mandate. As Dr. Leroy E. Burney, Surgeon General of the Public Health Service, stated in a recent speech, "few if any problems are more intricately interwoven into the fabric of our society than the control of water pollution. Clean water is essential to our industrial technology, and to agriculture; and it is essential to the conservation and use of the many natural resources upon which the richer life depends."

The Water Quality Act of 1965 amended the Federal Water Pollution Control Act to provide for the establishment of water quality standards for all interstate waters. The act was further amended in 1966 by the Clean Water Restoration Act which established higher quality standards for all of the Nation's water resources.

These two successive legislative landmarks have made available to state and local governments the resources of the Federal government for more effective water pollution abatement.

The greatest breakthrough in both pieces of legislation, however, was the provision for the establishment of water quality standards together with plans for their implementation and enforcement. Standards are to be developed by each state subject to the review and approval of the Secretary of the Interior. In establishing the standards, within the framework of the federal legislation, the states are required to: (1) determine the uses to be made of a given body of water; (2) assign water quality criteria necessary to support those uses; and (3) develop a plan of compliance so as to achieve and maintain those criteria.

### BASIC CRITICAL ISSUES

The basic critical issues facing Montgomery County in 1969 concerning water resources are:

- LACK OF AN ADEQUATE PROGRAM FOR IMPLEMENTATION AND ENFORCEMENT OF WATER POLLUTION CONTROL.

To achieve the preservation or, in some cases, restoration of our water resources involves active enforcement of pertinent regulations.<sup>9</sup> Regulations need to be revised as necessary to reflect the improving levels of water pollution control technology. Monitoring systems could be established to insure that private, commercial, and governmental pollution sources comply with established standards.

### • FINANCING WATER POLLUTION ABATEMENT PROGRAMS •

Preventing water pollution involves removing the physical, chemical or biological contaminants from waste water. Specifically, this means removing or changing characteristics of temperature, taste, color, odor, gases, radioactivity, and solid or adverse substances from a body of water.

To effect the water quality standards addressed to these pollutants costs a great deal of money. These funds should, ideally, be forthcoming from the polluters. In many cases, industry and private land owners can be assessed for pollution damages and ordered to prevent any further such pollutant discharges.

Other sources of pollution, such as the effluent outflow from a municipal sewage treatment plant, are a public problem. Federal and state water quality standards may dictate an advanced treatment system for nutrient removal. If the plant does not provide such treatment, then public funds will be necessary to provide the advanced waste treatment.

Other examples of non-commercial polluters include federal government installations, military bases, and state and local government buildings. Although the burden of

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<sup>9</sup>Maryland State Department of Health Regulations  
Article 43, Section 387-400  
Article 43L02, 01-0220, and 03-0314  
Specification 43, Para. 0601-0611

Montgomery County Code  
Chapter 103A, Sections 1-12

Water Resources Regulation 4.8, State of Maryland

pollution control measures can often be placed upon industry, the public will be asked to pay the cost of a large portion of needed pollution abatement programs.

PROTECTION OF WATER RESOURCES FROM STORM WATER RUNOFF

Storm water runoff causes a secondary source of water pollution, namely: chemicals, erosion and sedimentation, surface debris washoff, oils and non-soluble liquids, and septic liquids from catch basins. Once the problems of sewage and industrial pollution and combined sewers are corrected, urban runoff will assume a greater importance in the water pollution abatement program.

SANITARY AND INDUSTRIAL POLLUTION OF WATER RESOURCES

The Nation is facing severe pollution of its water courses, lakes, and estuaries. The problem is most acute in those areas where there is intense urban and industrial development. For decades, effluents from these sources have been dumped into the nearest body of water without adequate regard for future consequences. Sufficient scientific data and expertise now exists to offer firm and complete answers to sanitary and industrial water pollution.

POLICY STATEMENTS OF THE 1964 GENERAL PLAN

The 1964 General Plan as amended did not adequately discuss the problems of water resources as related to pollution.

OBJECTIVES

1. An important source of water supply in the future may be the tremendous underground supply. Since this supply is recharged by rainfall seeping into the ground, in the area along the fall line between the Piedmont Plateau and the Coastal Plain near the Montgomery-Prince George's boundary, its usefulness will depend upon protection of the recharge area.

This objective covers several areas of importance in a single statement. It should be rewritten and the parts applicable to the Conservation Element placed therein. Those parts applicable to water supply will appear in that sub-element.

2. Twice as much water must be stored in dams to dilute and flush away sewage as to supply water for our homes and businesses.

This policy statement is poorly worded and should not be included in the General Plan.

3. Storm sewers can be relatively short, emptying into natural drainage channels controlled by small dams and silt reservoirs at the edges of urban development.

This objective is still valid but has not been implemented.

GUIDELINES

1. ...Watersheds eventually will have to be served by additional permanent sewage treatment plants located on the Potomac and Patuxent Rivers south of Washington. But until the limited access trunk sewers and permanent plants at these locations can be justified, small populations upstream can be adequately served by temporary oxidation ponds.

This guideline should be reworded and expanded to reflect the regional concept of the General Plan.

RECOMMENDED OBJECTIVES, GUIDELINES, AND STANDARDS

OBJECTIVE

- \*\*\* E. MONITOR CONTINUOUSLY AND MAINTAIN AT A HIGH LEVEL THE WATERS OF MONTGOMERY COUNTY TO ASSURE, FOR THE PRESENT AND FUTURE, A HEALTHY AND AESTHETIC SUPPLY OF CLEAN WATER.

The Maryland State Department of Water Resources and the Maryland Water Resources Commission, in response to federal requirements, established in June 1967 the Water Quality Criteria and Standards applicable to the waters of Maryland. Known as Maryland Water Resources Regulation 4.8, it firmly established the basic guidelines and standards for monitoring and maintaining specific levels of water quality for all the Maryland waters.

The following guidelines are designed to support the above objective:

GUIDELINES

- \*\*\* 1. DO NOT PERMIT STREAM WATER QUALITY TO FALL BELOW THE MINIMUM STANDARDS SET BY THE MARYLAND WATER RESOURCE COMMISSION AND THE MARYLAND DEPARTMENT OF WATER RESOURCES.
- \*\*\* 2. KEEP THE WATERS OF THE POTOMAC RIVER FREE OF SUBSTANCES ATTRIBUTABLE TO MUNICIPAL, INDUSTRIAL, OR OTHER WASTE DISCHARGES IN CONCENTRATIONS OR AMOUNTS SUFFICIENT TO BE INIMICAL OR HARMFUL FOR WATER RECREATION USES OR HUMAN, ANIMAL, PLANT OR AQUATIC LIFE.
- \*\*\* 3. REQUIRE COORDINATION BETWEEN PUBLIC AGENCIES CONCERNED WITH STORM DRAINAGE AND RUNOFF MANAGEMENT TO CONTROL FLOOD HAZARDS AND FLOOD DAMAGE AND TO REDUCE WATER POLLUTION FROM EROSION AND DEBRIS.
- \*\*\* 4. CONTROL DEBRIS EITHER FLOATING OR ANCHORED, WHICH CONSTITUTE A HAZARD TO NAVIGATION AND THE FREE FLOW OF WATER IN STREAMS OR RIVER CHANNELS.
- \*\*\* 5. PREVENT THERMAL POLLUTION THAT CAUSES HARMFUL EFFECTS UPON AQUATIC LIFE AND THE GENERAL ECOLOGY OF ESTUARY AREAS.
- \*\*\* 6. REQUIRE ADEQUATE SEWAGE TREATMENT CAPACITY BE AVAILABLE FOR NEW SUBDIVISION DEVELOPMENT.

\*\*\*\*\*

OBJECTIVE

- \*\*\* F. PROTECT WATER RESOURCES BY REQUIRING SOUND LAND USE MANAGEMENT.

Sound land management is another link in the chain of clean water resources. The pressures and time constraints of a growing population sometimes appear to be overwhelming when controls are needed. But as the population does expand, so also does the requirement for tighter water pollution control and water supply. Groundwater sources should be used to as great an extent as possible. To accomplish this, the groundwater (aquifer) recharge areas must

be protected. The land surrounding the region's primary sources of water supply--namely the Potomac and Patuxent Rivers--should be protected by sound land use management that will prevent the pollution of the water.

GUIDELINES

- \*\* 1. PROTECT THE AQUIFER RECHARGE AREA ALONG THE FALL LINE BETWEEN THE PIEDMONT PLATEAU AND THE COASTAL PLAIN NEAR THE MONTGOMERY-PRINCE GEORGE'S COUNTY BOUNDARY.
- \*\*\* 2. RECHARGE GROUNDWATER AQUIFERS WITH STORM WATER RUNOFF AND PROCESSED WASTE WATER FROM SEWAGE TREATMENT PLANTS WHERE IT COMPLIES WITH THE DEPARTMENT OF WATER RESOURCES WATER QUALITY STANDARDS.
- \*\* 3. PROTECT THE NATURAL DRAINAGE BASIN OF THE PATUXENT RIVER ABOVE THE TRIADELPHIA AND T. HOWARD DUCKETT WATER RESERVOIRS.
- \*\*\* 4. CONTROL LAND USE IN THE POTOMAC RIVER BASIN ABOVE THE RAW WATER INTAKES FOR WATER SUPPLY TO PREVENT DISCHARGE OF ANY MATERIAL THAT WOULD ENDANGER THAT SUPPLY.
- \*\*\* 5. ACQUIRE OR REGULATE PROPERTIES ABUTTING ON COUNTY STREAMS AND RIVERS.

STANDARD

- 1. SURROUND RESERVOIRS WITH TWO ACRES OF SURROUNDING CONSERVATION PROPERTY PER ACRE OF INUNDATED LAND.

\*\*\*\*\*

OBJECTIVE

- \*\*\* G. PROTECT WATER RESOURCES FROM POLLUTING RUNOFF.

An important source of water pollution results from storm water runoff. Current studies sponsored by the Federal Water Pollution Control Administration are investigating the residues of DDT insecticide occurring in fish and water sediments. Other runoff pollutants include sediment, street garbage, and road oils. The hope is that such pollutants can be deterred from entering local waters by initiating sound control programs.

A method of lessening the problems of accelerated water discharge following periods of rainfall is to employ natural drainage channels. Grassed and other naturally vegetated channels allow seepage, reduce the velocity of moving water, and serve as conservation areas. Another solution to storm and urban runoff lies in constructing a series of small impoundments and silt reservoirs at the edges of urban developments, thus trapping harmful pollutants prior to their entry to a main water course. By requiring building downspouts to empty into pervious ground or cisterns, ground aquifers may be recharged or the water stored for emergency purposes. The key is to reduce the volume and velocity of storm water runoff, and the following guidelines should be implemented to assist in this effort.

#### GUIDELINES

- \*\*\* 1. DESIGN AND MAINTAIN STORM SEWERS IN SUCH A MANNER AS TO PRECLUDE WATER POLLUTION.
- \*\*\* 2. MAINTAIN THE NATURAL CHARACTER OF DRAINAGE AREAS IN THE IMMEDIATE VICINITY OF A WATERCOURSE.
- \*\*\* 3. REQUIRE GRASS CHANNELS IN LIEU OF PIPES WHICH COMPLETELY ENCLOSE WATERCOURSES.
- \*\*\* 4. CLEAN PAVED AREAS TO PREVENT ANIMAL WASTES, CHEMICALS, DUST, DIRT AND LITTER FROM ENTERING WATERCOURSES.
- \*\*\* 5. REQUIRE ROOF DRAIN DISCHARGE ONTO OR INTO PERVIOUS GROUND AREAS OR TEMPORARY IMPOUNDMENTS.
- \*\*\* 6. REQUIRE SEDIMENT AND EROSION PREVENTION PLANS PRIOR TO DEVELOPMENT.

The following standard was contained in the 1964 General Plan and should be retained in the General Plan. It is perhaps the best method for controlling storm water discharges.

#### STANDARD

- \* 1. STORM SEWERS SHOULD BE RELATIVELY SHORT, EMPTYING INTO NATURAL DRAINAGE CHANNELS CONTROLLED BY SMALL DAMS AND SILT RESERVOIRS AT THE EDGES OF URBAN DEVELOPMENT.

\*\*\*\*\*

#### OBJECTIVE

- \*\*\* H. PROTECT WATER RESOURCES FROM CONCENTRATED SOURCES OF POLLUTION.

Every effort should be made to employ advanced waste treatment methods in sewage treatment plants including nutrient removal. In areas not presently served by community sewer systems, package plants or central facilities should be considered for subdivisions, commercial areas, and urban areas in lieu of individual systems.

The Maryland Water Resources Regulations 4.8 provides the standards for general water quality criteria and specific water quality standards. Where the water quality of a stream, river, or lake exceeds these standards, the existing water quality should become the standard for that body of water.

#### GUIDELINES

- \*\*\* 1. REQUIRE THE USE OF ADVANCED WASTE TREATMENT METHODS IN SEWAGE TREATMENT PLANTS.
- \*\*\* 2. MAINTAIN THE HIGHER NATURAL STANDARD IN WATERS WHERE THE NATURAL WATER QUALITY EXCEEDS THE STATE STANDARDS.
- \*\*\* 3. USE INDIVIDUAL, PACKAGE OR CENTRAL SEWAGE TREATMENT FACILITIES ONLY WHERE SUCH SYSTEMS DO NOT CAUSE GROUND WATER OR SURFACE WATER POLLUTION.

#### STANDARD

- 1. USE WATER RESOURCES REGULATION 4.8 WHICH PROVIDES THE STANDARDS FOR ALL MARYLAND WATERS INCLUDING GENERAL WATER QUALITY CRITERIA AND SPECIFIC WATER QUALITY STANDARDS.

## VI. AIR AND NOISE POLLUTION

### BASIC CRITICAL ISSUES

The basic critical issues facing Montgomery County in 1969 in air and noise pollution are:

#### ·RELATING AIR POLLUTION TO LAND DEVELOPMENT POLICIES·

Urban areas are heated artificially as well as by the sun's rays. Thus urban areas tend to be several degrees warmer than their surrounding hinterlands. The higher the concentration, and greater the intensity of urban uses, the greater the temperature difference between the two. The "heat island" is that point in the urban area where the thermal gradient in all directions is in balance. Temperatures in the area of the "heat island" will usually be the warmest of the entire urban area. Since hot air rises, the air in the "heat island" area will rise forming a localized high pressure area. As this warm air rises it will draw in or will be replaced by the slightly cooler air from the surrounding area.

In the New York Metropolitan area the "heat island" occurs over Manhattan Island and, depending on the direction and strength of the prevailing winds, usually draws in heavily polluted air from the New Jersey industrial areas. However, if areas surrounding major urban concentrations can be declared off limits to any major sources of air pollution, or if the sources can be controlled and regulated to avoid pollution, the air drawn in by the heat island effect will be pure and thus establish a natural ventilation system for the urban complex.

The Wedges and Corridors concept lends itself to creating just such a natural ventilation system. It would not eliminate the problem or air pollution but would keep the air moving, pushing polluted air to higher levels of the atmosphere where it can be dispersed more easily and replacing it with cleaner surface air. Such a land development pattern and the micro-climatic conditions it produces would assist in ventilating an urban area and disperse air pollutants. A policy of sprawl development tends to decrease the temperature differences between urban and rural areas, thus destroying any possibility of creating a natural ventilation system.

#### ·THE LACK OF EFFECTIVE EMISSION CONTROLS FOR MOTOR VEHICLES·

Air pollution from non-stationary sources--motor vehicles--is the major source of air pollution in the area. Emission control devices could reduce the amount of pollutants allowed to escape into the atmosphere from motor vehicles by up to 85%. However, Montgomery County has not adopted, as a part of their air pollution control ordinance, that part of the Metropolitan Washington Council of Governments' model air pollution control ordinance requiring all motor vehicles to be equipped with such devices by 1970. The Federal government requires all new cars to be so equipped (since 1968 model series). However, the government fails to require such devices be installed on buses, trucks, and used automobiles. The county ordinances prohibit the removal of such factory installed devices or the disconnecting of this equipment. However, the ordinance fails to establish an inspection program to assure compliance. What is really needed is a nation- and state-wide motor vehicle inspection program that can be administered by each state jurisdiction. Currently in effect in Montgomery County are air pollution control ordinances and state regulations,<sup>10</sup> which control visible emissions; gas, vapor and odor emissions; open fires; and salvage operations, but this is only a beginning.

#### ·RELATING NOISE POLLUTION TO LAND USE POLICIES·

Noise pollution may be separated in two broad categories. The first category includes annoying, nuisance, or frustrating sounds and the second includes those sounds causing physical damage to human hearing. The first category is usually enforced through local noise control regulations. The second category is associated, in most cases, with occupational hazards where the solution to the problem lies in protective devices and systems.

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<sup>10</sup>Regulations Governing the Control of Air Pollution in the State of Maryland, Maryland State Department of Health, Article 43P01, effective January 28, 1969, and

Regulations Governing the Control of Air Pollution in Area IV, Maryland State Department of Health, Article 43P05, effective May 28, 1968. (Area IV includes Montgomery County.)



Noise pollution could be controlled by physically separating or isolating potential sources of unwanted sound from the rest of the community. Industrial parks, freeways, airports, and other objectionable noise sources need to be located with sufficient surrounding land area to buffer unwanted sounds.

•LACK OF ADOPTED COMPREHENSIVE PERFORMANCE STANDARDS TO CONTROL NOISE POLLUTION•

There is no cohesive factor coordinating the efforts of each level of government responsible for an overall noise abatement program. For example, FHA refuses to insure mortgages of homes built in certain noise level areas (100 CNR contour lines)<sup>11</sup> as drawn around airports. FAA and local governments, on the other hand, pay only token attention to the problem of noise pollution. They approve airports which will have objectionable noise levels radiating over developed residential neighborhoods. Montgomery County's I-3 zone establishes noise limits. However, the County's Office of License and Inspection, which is charged with enforcing the zone's requirements, has neither the equipment nor the technically trained personnel to effectuate it.

•COSTS OF AIR AND NOISE POLLUTION•

The tangible cost of air pollution in the United States has been conservatively placed between ten to twenty billion dollars per year. This cost can be broken down into two parts: (1) the actual cost of damage and inconvenience; and (2) the cost of controlling air pollution. Recent studies tend to point to the conclusion that the cost of air pollution is greater than the cost of air pollution control. Due to the lack of research data on noise pollution abatement, no cost figures have been developed. The costs of abating noise pollution are anticipated to be large.

•APATHY AND LACK OF PUBLIC AWARENESS TOWARD THE PROBLEMS OF AIR AND NOISE POLLUTION•

The general public does not appear to fully recognize or understand the dangers of air or noise pollution to their personal health and property. Air pollution can be directly

linked to several forms of cancer and respiratory diseases. Indirectly, it has been linked to shorter life expectancy for persons with heart conditions. Decreased visibility resulting from air pollution can be the cause of traffic as well as aircraft accidents. Besides hazards to human life it can and does cause plant and wildlife damage as well as property damage. Noise pollution can result in annoyances or auditory damages.

POLICY STATEMENTS OF THE 1964 GENERAL PLAN

A reviewing of the policy statements of the 1964 General Plan revealed no specific statements concerning air pollution and only a few limited statements on noise pollution control.

OBJECTIVES

None stated.

GUIDELINES

1. Reduce potential hazards and nuisances to population by appropriate regulations and control measures. (Airport noise.)

This policy statement has not been implemented to date. It should be reworded to encompass a broader meaning that would serve as a noise guideline. There are two concepts contained in this statement, one of which is not concerned with noise pollution as such. The concept dealing with flight hazards should not be a part of this environmental sub-element.

2. In addition, special airport zoning and the purchase of noise easements will be required both for the protection of airport and the protection of the general public which might otherwise be induced to buy homesites too close to the inevitable noise in the flight paths.

This statement is more properly an implementation technique than a guideline.

3. ACTION: Prohibit intrusion of incompatible development into airport approach zones and high noise level areas by judicious use of zoning.

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<sup>11</sup>Composite Noise Rating (CNR). See Glossary.

4. ACTION: Encourage the appropriate State and Federal authorities to make studies of noise levels around Andrews Air Force Base and other airfields, so that areas unsuitable for subdivision can be more accurately mapped.

These two statements are more properly an implementation technique than a guideline.

#### RECOMMENDED OBJECTIVES, GUIDELINES, AND STANDARDS

Clean air will ultimately depend upon the community's success in controlling air pollution at its source. To attack this problem, standards are being developed to set the maximum permissible levels of a pollutant in the ambient air.<sup>12</sup> In the near future, Montgomery County will establish ambient air quality standards for particulate matter and sulfur oxides in accordance with Department of Health, Education, and Welfare criteria.

The Federal Air Quality Act of 1967 laid the groundwork for a comprehensive program for the prevention and control of air pollution. Under this Act, the HEW was directed to disseminate information to the states on the characteristics of individual air pollutants. The states in turn are required to develop ambient air quality standards as this information becomes available. Once these air quality standards have been approved, the State of Maryland will have three months in which to initiate an enforcement program that will assure that these standards are achieved and maintained.

Local air pollution control ordinances, which have been adopted in Montgomery County and are administered by the county health department, are not directly related to ambient air quality standards. These ordinances are designed to control the emission of air pollutants at their source. As ambient air quality standards are established by the State, the local ordinances will be adjusted to insure that the quality of the air in the area meets the State requirements. Performance standards in the county zoning ordinance should incorporate these emission controls.<sup>13</sup>

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<sup>12</sup>Ambient - Refers to the surrounding air.

<sup>13</sup>See "Air Pollution Controls," Montgomery County Code 1965, Chapter 74 as amended; and Metropolitan Washington Council of Governments, "Model Air Pollution Ordinance," adopted July 14, 1966.

No specific policy statements were made concerning air pollution in the 1964 Plan, therefore all the following is now proposed for inclusion in the General Plan.

#### OBJECTIVE

- \*\*\* I. ASSURE THAT THE QUALITY OF AIR IN MONTGOMERY COUNTY WILL ENHANCE THE ENJOYMENT OF LIFE AND PROPERTY.

Appropriate guideline to attain the above objective is:

#### GUIDELINE

- \*\*\* 1. ELIMINATE FROM THE ATMOSPHERE THE PRESENCE OF ODORS, SOLIDS, VAPORS, LIQUIDS, OR GASES IN CONCENTRATIONS CONSIDERED TO BE INJURIOUS TO HUMAN, PLANT OR ANIMAL LIFE OR TO PROPERTY.
- \*\*\* 2. CONTROL THE ADVERSE EFFECTS OF AIR POLLUTION.

\*\*\*\*\*

Noise is considered to be a form of air pollution. The subject of noise pollution is quite complex and there remains much work to be done if it is going to be controlled in the future.

Very little information has been developed in the field of noise pollution which would relate to ambient standards and criteria. What has been developed relates to occupational health hazards associated with individuals working in areas of high noise concentration, such as factories and airports, and to sources of pollution hazardous to human health.

The Metropolitan Washington Council of Governments is presently preparing a federal grant request to study the problem of noise pollution to help provide some of the needed answers.

#### OBJECTIVE

- \*\*\* J. ASSURE THE RESIDENTS OF MONTGOMERY COUNTY THE RIGHT TO THE REASONABLE ENJOYMENT OF LIFE AND PROPERTY WITHOUT INTERFERENCE FROM LOUD, UNDESIRABLE AND ANNOYING NOISE.

Appropriate guidelines to attain the above objective are:

## VII SOLID WASTE

### GUIDELINE

- \*\*\* 1. AVOID THE CREATION OR CONTINUANCE OF LOUD, UNNECESSARY, UNWANTED OR UNUSUAL NOISE.
- \*\*\* 2. CONTROL THE ADVERSE EFFECTS OF NOISE POLLUTION.

### BASIC CRITICAL ISSUES

The basic critical issues facing Montgomery County in 1969 in solid waste are:

- LACK OF ADEQUATE FACILITIES AND SITES FOR DISPOSAL OF SOLID WASTE.

Solid waste must be viewed as a metropolitan problem with metropolitan solutions. At present, the single most basic need is for adequate disposal sites. Regardless of the process, including incineration, there exists a residue that must be disposed of in a manner compatible with the environment.

In the past, some methods of waste disposal have converted one form of pollution to another. Thus burning and incinerating, if not properly done, will cause air pollution. If land fill operations are not adequately managed, this will cause water pollution and spur rodent and other pest infestation.

Any further delays in resolving the short and long run requirements for solid waste disposal will only inordinately inflate the final costs. In fact, sites may not be available, at any price, in the future if they are not reserved shortly. A concerted effort is needed now to secure the necessary sites and develop long range solutions to this ever mounting problem.

- ADVERSE PUBLIC ATTITUDE TOWARD SANITARY LANDFILL AND INCINERATOR SITE.

The public tends to equate modern sanitary landfills with the concept of the "old city dump" and its accompanying odor, smoke, fires, flies, and pests. Nothing could be further from the truth. Modern, properly operated landfills and modern incinerators, equipped with air pollution control devices, do not pollute the soil, air, or water.

The hope is that future sanitary landfills will be employed for useful purposes, such as parks and recreation areas.

POLICY STATEMENTS OF THE 1964 GENERAL PLAN

None stated.

RECOMMENDED OBJECTIVES, GUIDELINES AND STANDARDS

Solid waste has been acclaimed as a major urban problem for today and the future. Active research and enforcement programs are needed to formulate new processing techniques and to see to it that the best technologies become reality.

Montgomery County should prepare a comprehensive solid waste program to handle the County's waste disposal through the year 2000. Such a program is not viewed as the ultimate solution for future waste disposal. New technological systems will alter the methods of disposal and will be implemented. The program should be designed to identify the areas where land and equipment are required and allow the County to become more adaptable to the needs for future solid waste disposal.

In a recent study<sup>14</sup> for the Washington Metropolitan region, which was sponsored in part by The Maryland-National Capital Park and Planning Commission, possible sites for sanitary landfill operations and reduction operations were selected by Black and Veatch, Consulting Engineers. These sites, both within and without Montgomery County, must be given serious consideration. (See Figures 9, 10, 11).

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<sup>14</sup>Solid Waste Disposal Study for the Washington Metropolitan Region; Black & Veatch Consulting Engineers; October, 1967.

In some local areas the problem has already reached crisis proportions, but since no jurisdiction by itself can solve its solid waste problem in the long run, a metropolitan approach will be a necessity. The only valid long range solution to the solid waste problem is regional in scope. It may become necessary to develop a solid waste agency for the Metropolitan area. Such an agency would negotiate for land outside the metropolitan area and supervise future landfill operations.

The Solid Waste Disposal Study<sup>15</sup> surveyed an area including the District of Columbia, Charles, Montgomery and Prince George's Counties in Maryland; Arlington, Fairfax, Loudoun and Prince William Counties and the Cities of Alexandria, Fairfax, and Falls Church in Virginia. As used in the study, solid wastes included garbage, garden refuse, leaves, rubbish, incinerator ash, and other worthless solids and leavings, combustible or otherwise, of urban and suburban populations, requiring disposal and excavated and dredged materials. Sewage solids and discarded automobiles were specifically excluded from the study. A further omission of the study relates to the use of air pollution control equipment on incinerator facilities, an omission which could have a noticeable effect on the cost of such facilities. The magnitude of the solid waste problem may have been understated since later economic studies<sup>16</sup> reveal much greater population totals for the metropolitan region.

In reviewing the scope of the solid waste program in Montgomery County, it was noted by Black and Veatch that an incinerator plant is operated for disposal of incinerable refuse and a landfill is provided for incinerator residue and non-incinerable wastes. Virtually all refuse generated in the county except stumps and demolition debris is disposed of at these facilities. The incinerator plant has a capacity for immediate needs and can be expanded to handle the projected increase in refuse quantity for several years. However, the county landfill has just about reached its capacity. The problem is further compounded because the County does not have any good landfill sites available for raw refuse and few sites suitable for incinerator residue and inert wastes. The principal refuse needs of Montgomery County are disposal facilities for bulky wastes, landfill space for incinerator residue and non-incinerables, and additional incineration capacity. The County

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<sup>15</sup>Ibid.

<sup>16</sup>The Economy of Metropolitan Washington, Hammer, Greene, Siler Associates, 1969.



FIGURE 10



**INCINERATORS**

- ① MONTGOMERY COUNTY
- ② D.C. - FORT TOTTEN
- ③ D.C. - GEORGETOWN
- ④ D.C. - MT. OLIVET
- ⑤ D.C. - O. STREET
- ⑥ CHARLES COUNTY
- ⑦ ARLINGTON COUNTY
- ⑧ ALEXANDRIA
- ⑨ ALEXANDRIA

**SANITARY LANDFILLS**

- △ MONTGOMERY COUNTY
- △ WASHINGTON SUBURBAN SAN. COMM.
- △ BELAIR LANDFILL (PRIVATE)
- △ FAIRFAX COUNTY
- △ D.C. - CHERRY HILL
- △ CITY OF COLLEGE PARK
- △ CITY OF LAUREL

**BURNING DUMPS**

- ① D.C. - KENILWORTH
- ② PRINCE WILLIAM COUNTY (PRIVATE)
- ③ LOUDOUN COUNTY (PRIVATE)
- ④ ALEXANDRIA
- ⑤ CITY OF GREENBELT
- ⑥ WESTPHALIA (PRIVATE)
- ⑦ UPPER MARLBORO

**NONCOMBUSTIBLE DUMP**

- ① D.C. - KINGMAN LAKE
- ② D.C. - OXON RUN (CLOSED)

**TRANSFER STATION**

- ⬆ DISTRICT OF COLUMBIA

**LEGEND**

- EXISTING INTERSTATE HIGHWAY
- EXISTING DIVIDED HIGHWAY
- - - PROPOSED EXPRESS HIGHWAY
- INTERCHANGE

**Regionwide**  
PRINCIPAL EXISTING  
DISPOSAL FACILITIES

Source: Black and Veatch Consulting Engineers, Solid Waste Disposal Study, October 1, 1967.



should adopt a program to maximize reduction of waste which would include shredding equipment and equipment for the reduction of automobiles and other large bulky materials; to consider salvage and reclamation where possible; to incinerate and employ all possible methods for obtaining maximum reduction of waste volume; and to provide inert fill sites and to involve itself in regional solutions to the overall problem. A program of solid waste management must be initiated that carries a long range solution to the problem including public education to accept sanitary landfill operations.

#### OBJECTIVE

- \*\*\* K. PROVIDE AN ADEQUATE SYSTEM FOR THE COLLECTION AND DISPOSAL OF SOLID WASTES TO INSURE THE PROTECTION OF PUBLIC HEALTH, THE REDUCTION OF FIRE HAZARDS, THE ELIMINATION OF WATER AND AIR POLLUTION, THE CONSERVATION OF LAND AND MATERIALS, AND THE IMPROVEMENT OF COMMUNITY APPEARANCE.

The following guidelines would serve to attain the stated objective:

#### GUIDELINES

- \*\*\* 1. PROVIDE SOLID WASTE DISPOSAL SERVICES TO ALL RESIDENTS AND COMMERCIAL AND INDUSTRIAL ESTABLISHMENTS ON A CONTINUOUS AND ADEQUATE BASIS.
- \*\*\* 2. PROVIDE FOR THE OPERATION OF INCINERATORS, SHREDDING EQUIPMENT, SALVAGE AND RECLAMATION PROCESSES, REDUCTION PROCESSES AND SANITARY LANDFILLS IN A MANNER THAT WILL NOT POLLUTE AIR, LAND OR WATER RESOURCES.
- \*\* 3. PROVIDE SUITABLE LAND FOR PRESENT AND FUTURE DISPOSAL NEEDS INCLUDING LANDS THAT MAY ULTIMATELY BE USED FOR RECREATION PURPOSES OR OTHER RE-USE.
- \*\*\* 4. ENCOURAGE A REGIONAL SYSTEM FOR HANDLING SOLID WASTES IN THE WASHINGTON METROPOLITAN AREA.

#### STANDARDS

- 1. LOCATE INCINERATORS IN INDUSTRIALLY ZONED AREAS HAVING GOOD HIGHWAY ACCESS, WITH SEVERAL ROUTES AVAILABLE SO THAT THE PUBLIC WILL NOT BE CONFRONTED WITH A LARGE VOLUME OF REFUSE VEHICLES.

- 2. ATTRACTIVELY DESIGN AND LANDSCAPE INCINERATOR FACILITIES, EQUIPPING THE UNITS WITH AIR POLLUTION CONTROL DEVICES.
- 3. LOCATE SANITARY LANDFILL SITES ON SUITABLE ACCESS ROADS, BUT HIDDEN FROM GENERAL VIEW OF THE PUBLIC.



## VIII. AESTHETICS AND LIVABILITY

Providing an aesthetic and healthful environment for present and future generations--the goal of the environmental element--has been discussed in the previous chapters in terms of utility systems, water resources, solid waste, and air, noise and water pollution. The importance of environmental aesthetics was also introduced by referring to the problems of unsightly utility poles and wires, and ugly water and transmission towers. This chapter expands on this subject of environmental aesthetics and relates why it is important to Montgomery County residents.

The major concern of modern society should be with the quality of the total environment--the areas people drive through, walk through, and live and work in. The visual perceptions received as citizens go about their daily activities have a great impact on each individual.

America has inherited a beautiful land to both preserve and enhance by attractive development. Unfortunately, however, this preservation and enhancement has not occurred. The lack of planning, design and development control in many of the core urban centers has caused serious problems of deterioration, blight and ugliness. Many suburbs are endless wastelands, dotted with thousands of monotonous houses on uniform lots and criss-crossed by highways lined with visual eyesores such as billboards, neon signs, gas stations and endless parking lots. Even the relatively unspoiled country side beyond these suburban fringes has begun to sprout more telephone wires and billboards than trees, and the previously clear and sparkling streams and rivers are becoming a murky brown with sediment and pollutants.

Montgomery County also has these problems to a certain extent. Although it would be unfair to infer that no progress has been made toward the resolution of these difficulties, it will take a great deal of additional effort to guarantee that all parts of the County will be both livable and beautiful.

## BASIC CRITICAL ISSUES

The basic critical issues facing Montgomery County in 1969 concerning aesthetics and urban design are:

### ·IMPROVING ENVIRONMENTAL QUALITY THROUGH REGIONAL AND COMMUNITY URBAN DESIGN PROPOSALS·

In today's ballooning urban areas the multiplicity of smaller communities surrounding a central city has had a major failing--that of individual community identify and overall regional organization. Montgomery County is no exception. This chaos in the visual environment demands immediate action to attempt to improve environmental quality through regional and community urban design proposals.

### ·IMPROVING THE MOTORIST'S ENVIRONMENT·

The visual perceptions received while driving are those aesthetic impressions of greatest concern to most individuals. Few attempts have been made to create a pleasing streetscape for the motorist. In the past, economics has frequently taken precedence over urban design principles, resulting in unappealing road alignments and visual "eyesores" such as billboards, flashy neon signs, used car lots and gas stations. This situation must be altered by developing controls for improving these visual irritations, enhancing the streetscape through landscaping and architecture, and designing road alignments in conformance with good urban design principles.

### ·THE CREATION OF AN ATTRACTIVE, SAFE AND CONVENIENT PEDESTRIAN NETWORK·

The pedestrian network should link downtown and suburban neighborhoods together in a viable pattern, separating pedestrian and vehicular traffic in an attractive and safe manner. Innovative and attractive design of pedestrian environments has received little thought in the past. Ugliness does not have to be the major factor in these environments as is too frequently the case today. Paths may be channeled through plantings, benches and art work to create the most appealing surroundings for the pedestrian.

·INCREASING LIVABILITY AND ATTRACTIVENESS OF LIVING AND WORKING ENVIRONMENTS·

For most people the majority of waking hours are spent either at home or at work. Frequently, too little attention is given to maximizing opportunities in creating these two environments. Today, urban designers interpret the residential environment very broadly, considering not only the design of dwelling units but also their relationship to shopping centers and community facilities. Too often there is a conflict between activities because of insensitive design of commercial, industrial, or even residential developments. The employee's environment has been neglected until recently; however, a greater sensitivity to the effect of the working surroundings on the employee is now apparent in many instances. This concept is still in its infancy and must be nurtured, so that proper design will eventually facilitate better integration of working and living areas.

POLICY STATEMENTS OF THE 1964 GENERAL PLAN

The 1964 General Plan did not include a specific aesthetic and urban design element. However, many of its concepts were directly or indirectly related to good urban design. In recent years aesthetics and urban design have become recognized as essential planning elements. This subject has therefore been incorporated into the assessment of the 1964 General Plan.

The following urban design policy statements were extrapolated from various sections of the 1964 General Plan.

GOAL

Invite imaginative urban design.

Imaginative urban design can greatly improve the quality and attractiveness of our environment. This goal has been partly implemented through greenbelts and average density, cluster and planned unit development ordinances. The statement is still applicable.

OBJECTIVES

1. Imaginative design can create an identity for each community, a source of pride for the residents of the community, and establish competition between areas that fosters an appreciation for the betterment of all communities.

2. Strive continuously to encourage flexible and imaginative residential design.

These two objectives are an expansion of the above mentioned goal and have been implemented through similar techniques. The statements are still applicable.

3. Mold the urban pattern into an efficient and pleasant one.

The objective is being implemented through all urban design inputs to general and local area plans. It is still applicable.

GUIDELINES

1. Appoint a Community Appearance Advisory Committee to act as a community conscience for the Regional District, spurring good public and private design.

This guideline has not been implemented although a Sign Review Committee in Montgomery County has been organized. The guideline is still applicable.

2. In each new corridor city there will be a densely built but well designed core in the center, with a rapid transit station under a pedestrian plaza. The tall buildings around the plaza will house shopping facilities, offices and apartments, all within easy walking distance. Urban parks, appropriate landscaping, and modern architecture will give a sense of spaciousness. Social, cultural and educational activities will also be provided in each core so that the "downtown" area will have a vital function even after the workday is over.

Many of the urban design recommendations in this guideline have been incorporated within adopted master plans for corridor cities. The various concepts in this statement are still applicable.

3. Encourage the use of underground electrical and telephone wires.

This guideline has been partially implemented by Montgomery County through the zoning ordinance. The Maryland State Public Service Commission has also initiated supporting regulations for this guideline, which is still applicable.

RECOMMENDED OBJECTIVES AND GUIDELINES

OBJECTIVE

- \*\* L. PROMOTE AN ORDERLY AND ATTRACTIVE URBAN GROWTH FOR MONTGOMERY COUNTY.

It is the combined responsibility of planners, the general public, and the elected and appointed officials to promote an orderly and attractive urban growth pattern for Montgomery County.

Urban design plans should be developed for the region, sub-regions, and local areas which establish a framework through which an attractive and efficient urban growth pattern may be molded. Focal points--either new or existing--should be related within these plans to provide visual order and form to the entire County area.

It also is imperative that urban design considerations be incorporated into all aspects of the planning and development process, coordinating overall County design planning with individual developments of all sizes.

GUIDELINES

- \*\*\* 1. PROMOTE URBAN DESIGN PLANNING FOR THE REGION, SUB-REGION, AND LOCAL AREAS.
- \*\*\* 2. INCORPORATE URBAN DESIGN CONSIDERATIONS INTO ALL ASPECTS OF THE PLANNING AND DEVELOPMENT PROCESS.

\*\*\*\*\*

OBJECTIVE

- \*\* M. ENCOURAGE COMMUNITY PARTICIPATION TO PROMOTE GOOD DESIGN

To achieve an orderly and attractive growth pattern for the Montgomery Region, the public must become more aware of urban design considerations and have the desire to respond to them. Once the public insists on a better environment of both the business community and the political representatives and is willing to pay for it, a more livable and beautiful environment will be provided.

For total effectiveness of urban design plans, there must be direct community participation in promoting good design. To coordinate community participation for implementation of urban design plans and to spur good public and private design the appointment of a Community Appearance Advisory Committee is vital. The Sign Review Committee in Montgomery County has certainly contributed a great deal, but a Community Appearance Advisory Committee could make even a far greater impact on improving the attractiveness of the entire County.

As an important part of an urban design plan it would also be necessary to create a framework for development of an enthusiastic participation program for citizen groups, clubs and business and industry representatives and associations. These groups will have a strong responsibility in effectuating the recommendations of the Community Appearance Advisory Committee as well as implementing urban design plans.

GUIDELINES

- \*\* 1. ENCOURAGE THE CREATION OF CITIZENS COMMITTEES TO IMPROVE COMMUNITY APPEARANCE AND SPUR GOOD PUBLIC AND PRIVATE DESIGN.
- \*\*\* 2. PROMOTE A PARTICIPATION PROGRAM FOR CITIZENS GROUPS, CLUBS, AND BUSINESS ASSOCIATIONS.

\*\*\*\*\*

OBJECTIVE

- \*\*\* N. CREATE A PLEASING STREETScape IMAGE FOR THE MOTORIST.

Few attempts have been made to create a pleasing streetscape for the motorist. Views seen from the roadway must be deliberately planned, evolving sequences of pleasurable visual impressions. Visual interest and scenic richness are achieved through variety and contrast--near versus far, light versus dark, and natural versus the architectural.

Landscaping can provide one of the single most important methods of improving the motorist's view. Tree lined streets, landscaped buffer areas, and streetside planting strips can greatly enhance the streetscape.

Attractive and innovative architecture is another essential contributor to roadside aesthetics and is certainly the most important feature in most urban areas. The driver should be provided with a variety of visual experiences. Views of similar features from similar distances and elevations are bound to be monotonous. Where possible, curvilinear highway alignments, in comparison with long, straight roads, provide more attractive and varied views.

#### GUIDELINES

- \*\*\* 1. IMPROVE THE MOTORIST'S VIEW BY USING SUCH DEVICES AS LANDSCAPING, BUFFER STRIPS, INNOVATIVE DESIGN AND VARIED SETBACKS.
- \*\*\* 2. LOCATE AND DESIGN HIGHWAYS AND ADJACENT LAND USES TO ENHANCE RATHER THAN DESTROY AN AREAS' BEST ATTRIBUTES.

\*\*\*\*\*

#### OBJECTIVE

- \*\*\* O. REMOVE UNATTRACTIVE ELEMENTS FROM ROADSIDE DEVELOPMENTS.

Many streets, as viewed by the motorist, are crowded corridors, where automobiles are hopelessly intermingled with unsightly land use such as billboards, flashy neon signs, gas stations and used car lots. Strip commercial areas appear to be the worst offenders, offering long lines of interrupted ugliness, unavoidable to the motorist because of their close proximity to the road. Haphazard conversion of older residential areas to commercial and industrial land uses has also created unappealing areas on the fringes of older and expanding suburban centers.

Expansion of existing temporary and long range controls for improving visual "eyesores" could improve the situation considerably. Removal of unattractive signs, installation of landscaping, and creation of attractive store fronts would go a long way towards uplifting unattractive areas.

#### GUIDELINES

- \*\*\* 1. DEVELOP TEMPORARY AND LONG RANGE CONTROLS FOR IMPROVING VISUAL "EYESORES".
- \*\*\* 2. AVOID HAPHAZARD CONVERSION OF OLDER RESIDENTIAL AREAS TO ROADSIDE COMMERCIAL AND INDUSTRIAL LAND USES.

\*\*\*\*\*

#### OBJECTIVE

- \*\*\* P. ALIGN ROADWAYS TO BE COMPATIBLE WITH URBAN DESIGN OBJECTIVES.

The alignment of roadways to be compatible with urban design objectives is especially important because for most people roadways are the predominant visual land use. The design of urban thoroughfares should allow drivers to easily find the direction toward desired destinations, and provide a sense of smooth uninterrupted flow. This can be accomplished by locating and designing roads not only in harmony with landscape forms but well related to architectural features. Focal points are especially important to define roadway origins and destinations.

Roadways must be designed to impart a feeling of identity, location, direction, and destination. Where major streets are confusing or lacking in identity, the entire city image is unclear. A sequence of known landmarks, land uses, or distinctive facade characteristics, may assist in giving street identity and a sense of destination.

New roads should be aligned to take advantage whenever possible of existing natural features, special activity centers, and focal points. By both its path or alignment and by changes in elevation, a roadway should be designed to explore and reveal the best views of the landscape within which it is located.

The design of roadways should take advantage of specific features of the land, relating to each in such a way as to identify and reveal to the motorist its special character. On high speed roads, the driver can only experience those views positioned almost directly ahead of him. On lower speed roads a much wider panorama can be observed so that intermediate and near views assume much greater importance.

Highway design should be responsive to all the visual features and landmarks--both positive and negative. Even within urban areas, minimum rights-of-way for new roads should be widened in appropriate areas to include and preserve such natural features as ponds, streams, and trees.

Attractive parking facilities, another important feature to the motorist, must be designed to be easily identifiable from the road. They should be visually apparent and readily accessible from roadways, as well as conveniently located with respect to activity centers.

GUIDELINES

- \*\*\* 1. DESIGN ROADWAYS TO INSTILL A SENSE OF IDENTITY, LOCATION, DIRECTION, AND DESTINATION.
- \*\*\* 2. DEVELOP ROADS TO TAKE VISUAL COGNIZANCE OF EXISTING FOCAL POINTS, SPECIAL ACTIVITY DISTRICTS, OR TOPOGRAPHY.
- \*\*\* 3. DESIGN ATTRACTIVE OFF-STREET PARKING AREAS TO BE VISUALLY IDENTIFIABLE AND EASILY ACCESSIBLE TO THE MOTORIST.

The motorist is not alone in his exposure to visual ugliness. The pedestrian faces an equally unattractive view and frequently finds himself unsafely competing with the automobile for space.

OBJECTIVE

- \*\*\* Q. PROVIDE SEPARATION OF PEDESTRIAN WALKS AND VEHICULAR ROADWAYS.

The increasing utilization of automobiles has resulted in damaging congestion of our urban streets, interfering with the creation of a human pedestrian environment. The close proximity of the car and the pedestrian has hampered the development of desirable environmental quality for both.

The negative situation does not have to continue. Positive steps to create attractive separations between sidewalks and roadways must be taken and might include such techniques as raised planting strips, buffer landscaping and vertical and horizontal level differentiations.

GUIDELINES

- \*\*\* 1. CREATE ATTRACTIVE SEPARATIONS BETWEEN SIDEWALKS AND ROADWAYS THROUGH LANDSCAPING, RAISED PLANTING STRIPS, AND OTHER MEANS.
- \*\*\* 2. UTILIZE HORIZONTAL AND VERTICAL LEVEL DIFFERENTIALS TO ACHIEVE MAXIMUM VISUAL AND PHYSICAL SEPARATION.
- \*\*\* 3. REQUIRE SAFE, ATTRACTIVE PEDESTRIAN CROSSWALKS.

\*\*\*\*\*

OBJECTIVE

- \*\*\* R. ENCOURAGE IMAGINATIVE DESIGN OF PEDESTRIAN ENVIRONMENTS.

Separating the pedestrian from the automobile would also assist in encouraging additional sidewalk amenities. Landscaped walks, sitting areas, sculptured fountains and innovative street furniture would be a natural outcome of the desire to make these pedestrian places more livable and exciting.

Variable types of paving and street furniture, such as kiosks, are just a few things that can enhance the pedestrian environment. For example, decorative paving is to an outdoor living space what a rug is to an indoor space, accentuating the character of civic spaces and adding to the area's design image. In addition to being fashionable decoration for urban spaces, kiosks are a good means of providing an organizing framework for necessary street furniture, such as advertising signs, newspaper vending boxes, mail boxes, fire alarm and police boxes, transformers for underground power lines, trash receptacles, telephones, and drinking fountains.

GUIDELINES

- \*\*\* 1. UTILIZE A VARIETY OF PAVING MATERIALS AND CURVILINEAR SIDEWALKS.
- \*\*\* 2. CHANNEL PEDESTRIAN PATHS THROUGH PLANTINGS, BENCHES, FOUNTAINS, AND ART WORKS TO DEVELOP A SENSE OF MOVEMENT AND MAXIMIZE A PLEASING VIEW.
- \*\*\* 3. UTILIZE INNOVATIVE DESIGN TO IMPROVE THE APPEARANCE OF UTILITARIAN "STREET FURNITURE" SUCH AS MAIL BOXES, TELEPHONE BOOTHS, AND BUS STOPS, TRAFFIC SIGNS.

\*\*\*\*\*

OBJECTIVE

- \*\*\* S. DESIGN ACTIVITY CENTERS FOR THE PLEASURE AND CONVENIENCE OF THE PEDESTRIAN.

Downtown operates primarily as a pedestrian activity center. People walk from office to office, to and from stores, restaurants, clubs and other places. This is the special attraction of downtown and it is fundamental that people be able to walk freely from place to place without inconvenience, congestion and unpleasantness. This can be accomplished by centralizing functions and making them easily accessible and attractive.

Activity centers can be made far more appealing to the pedestrian by incorporating plazas, malls, small parks and sidewalk cafes.

Intensive land uses surrounding transit stations and other new construction should be encouraged to utilize innovative architecture, landscaping, and civic art to provide highlights in downtown areas.

#### GUIDELINES

- \*\* 1. DEVELOP CORE AREAS SO THAT ALL DOWNTOWN FUNCTIONS ARE CENTRALIZED, EASILY ACCESSIBLE AND ATTRACTIVE.
- \*\*\* 2. DESIGN TRANSIT STATIONS TO BE VISUALLY ATTRACTIVE, FUNCTIONAL, AND CONVENIENT ACTIVITY POINTS.
- \*\* 3. PROMOTE PLAZAS, MALLS, SMALL PARKS, AND SIDEWALK CAFES TO PROVIDE PEDESTRIAN FOCAL POINTS.
- \*\* 4. ENCOURAGE INNOVATIVE ARCHITECTURE, WINDOW DISPLAY, LANDSCAPING AND CIVIC ART (SUCH AS FOUNTAINS, SCULPTURE, AND MURALS) TO PROVIDE HIGHLIGHTS IN DOWNTOWN AREAS.

\*\*\*\*\*

#### OBJECTIVE

- \*\* T. PROMOTE THE DEVELOPMENT OF COMPATIBLE, YET VARIABLE AND IDENTIFIABLE RESIDENTIAL NEIGHBORHOODS.

In addition to the environment surrounding the motorist and the pedestrian, the livability and attractiveness of our living and working environments should be increased. This can be partially accomplished by creating a sense of neighborhood and community identity through visual compatibility and significant focal points. The importance of urban design and aesthetics in residential and employment areas cannot be overstressed for it is this environment in which individuals spend almost all of their time.

Promoting the development of variable, yet compatible residential neighborhoods as an identifiable element of the overall urban fabric is one of the keys to greater livability. Livability can be furthered by encouraging varied site plans, particularly of residential areas, that create spaciousness and interest. Retention of natural topographical features and incorporating

them into an overall neighborhood open space and recreation network is of prime importance in creating more livable neighborhoods.

The pattern of residential streets dictates the overall urban form of the neighborhood. Fortunately the monotonous grid street pattern of older subdivisions is no longer as prevalent. Particular attention must now be focused on a safe, logical and imaginative street pattern with coordinated appealing street furniture, and pedestrian paths.

Of prime importance in reinforcing the cohesiveness and livability of residential areas is the incorporation of community facilities and shopping centers as neighborhood focal points. These must be conveniently located for both the pedestrian and motorist, architecturally integrated and visually appealing.

Greater use of open space networks can be made if integrated with residential structures. This network also provides attractive vistas from housing units and should therefore be strongly promoted.

Conversely, many residential structures have direct views of commercial and industrial facilities, particularly the unsightly service areas of such facilities. Garbage cans, trash piles and unappealing rear entrances provide very unattractive views. Some very positive steps are needed for control of these unsightly service areas.

Residential developments in the center of new corridor cities should be densely constructed, in close conjunction with shopping facilities, business offices, and transit stations. Urban parks and appropriate landscaping will lend an air of spaciousness and social, cultural, and educational facilities will make the core areas well-rounded activity centers.

#### GUIDELINES

- \*\*\* 1. PROMOTE VARIED SITE PLAN DESIGNS THAT CREATE SPACIOUSNESS, INTEREST, AND BEAUTY.
- \*\*\* 2. PROVIDE A SAFE, LOGICAL AND IMAGINATIVE STREET PATTERN WITH APPEALING STREET FURNITURE AND LANDSCAPING.
- \*\* 3. DESIGN COMMUNITY FACILITIES AND NEIGHBORHOOD SHOPPING CENTERS TO BE CONVENIENTLY LOCATED, ARCHITECTURALLY INTEGRATED AND VISUALLY APPEALING.

- \*\*\* 4. INTEGRATE RESIDENTIAL STRUCTURES WITH AN OPEN SPACE NETWORK TO PROVIDE PLEASING VISTAS AND RECREATIONAL AREAS.
- \*\*\* 5. CONTROL APPEARANCE OF COMMERCIAL AND INDUSTRIAL SERVICE AREAS WHERE VISIBLE FROM RESIDENTIAL STRUCTURES.
- \*\* 6. DESIGN ACTIVITY CENTERS IN CORRIDOR CITIES TO INTEGRATE RESIDENTIAL AREAS WITH COMMERCIAL, CULTURAL, AND EMPLOYMENT FACILITIES AS WELL AS TRANSIT STATIONS AND URBAN PARKS.

\*\*\*\*\*

OBJECTIVE

- \*\*\* U. PROVIDE SAFE, ATTRACTIVE AND PLEASANT PLACES OF EMPLOYMENT.

While it is not as easy to control the development of a working environment, some positive efforts can be made to provide safe, attractive and pleasant places of employment. Usually without great additional expenditures, employment centers large and small could be designed to provide attractive landscaping with adequate and attractive parking, utilizing some small space at least for visual relief and outdoor employee relaxation. More difficult to achieve but even more important, employment centers should provide not only safe but pleasant working environments, including some type of leisure facility for use during coffee breaks and the lunch hours.

GUIDELINES

- \*\*\* 1. DESIGN EMPLOYMENT CENTERS TO PROVIDE ADEQUATE AND ATTRACTIVE PARKING, AND LEISURE FACILITIES.
- \*\*\* 2. UTILIZE LANDSCAPED OPEN SPACE FOR VISUAL RELIEF, AND EMPLOYEE RELAXATION.

APPENDIX

GLOSSARY OF TERMS

Air Pollution-	Contamination of the air by waste products of the activities of man.
Air Quality-	That degree of purity of the atmosphere that will protect the health, general welfare and property of the people.
Air Quality Control Area-	An area within the State of Maryland arbitrarily delineated for purposes of air quality control. (Prince George's and Montgomery Counties are Area IV).
Bulky Combustible Wastes-	Materials which can be reduced in volume by burning such as: logs, stumps, large furniture, etc.
Bulky non-combustible wastes-	Materials which cannot be reduced in volume by burning and are too bulky for solid fill such as residue from private incinerators, refrigerators, stones, bicycles, pipes, fencing, etc. Some material may be salvageable as scrap.
Community Sewerage System-	Any system whether publicly or privately owned, serving two or more individual lots for the collection and disposal of sewage or industrial wastes of a liquid nature, including various devices for the treatment of such sewage and industrial wastes.
Community Water System-	A source of water and a distribution system including treatment facilities and storage facilities, whether publicly or privately owned, serving two or more individual lots.
Composite Noise Rating (CNR)-	The noise stimulus in a community is comprised of several characteristics including the noise level. These various physical aspects are combined into single rating defined as the "Composite Noise Rating."

Concept-	An abstract idea formulated from current facts and assumptions.	Inert Waste-	See incinerator residue.
Criteria-	As used in relation to air pollution by the Department of Health, Education and Welfare, describes the relationship between a pollutant and its adverse effects on health and welfare. To date criteria have been set by H.E.W. for particulate matter and sulfur oxides.	Non-incinerable refuse-	Those wastes which are not reduced in volume by burning, are hazardous, are injurious to an incinerator, and which, without preprocessing, are too large to be handled in an incinerator or will not burn out in the normal incinerator burning cycle. May be broken into the following categories: bulky combustibles, bulky non-combustibles, solid fill material and dredged materials.
District-	The Maryland-Washington Regional District which includes Montgomery and Prince George's Counties.	Objective-	A defined community target capable of both attainment and measurement.
Dredged Materials-	Materials dredged from rivers and streams including sand, gravel, silt and muck, etc.	Particulate Matter-	Any material, except water in uncombined form that is or has been airborne, and exists as a liquid or a solid at standard conditions.
Goal-	An ideal seeking a value rather than an achievable object.	Policy-	An adopted course of action (including objectives, guidelines, standards and the adopted General Plan.
Guidelines-	A guideline is a general course of action structured to attain an objective.	Policy Statements-	Those stated goals, objectives and guidelines officially adopted by the District Councils.
Heat Island-	That point in the urban area where the thermal gradient or temperature rate of change in all directions is in balance.	Pollution Source-	Any stimulus, considered to be of a foreign or harmful nature, which renders a medium, such as air or water, impure.
Heat Island Effect-	Phenomenon whereby warmer urban produced heated air rises forming a localized high pressure area that is then occupied by cooler surrounding air.	Primary water and sewer system-	Treatment facilities, pumping stations, mains and interceptors, etc.
Implementation Program-	A program which includes suggested legislation, ordinances, codes, capital budgets and programs needed to carry out adopted and approved plans.	Program-	A detailed course of action which includes the various projects to be accomplished or instruments to be used, their timing for use of development and the resource commitment required (i.e., manpower or money, or both).
Incinerable refuse-	Includes most wastes collected from residences and institutions and a substantial part of commercial and industrial refuse such as: paper, cardboard, garbage, bottles, tin caps, plastics, rubber, cloth, etc.	Secondary water & sewer system-	Local distribution system, laterals, street lines, etc.
Incinerator residue-	The slag remaining from the incineration of incinerable refuse. The inert residue of combustion.		



Solid Fill  
Materials-

Materials such as earth, sand, brick, concrete, glass, and plaster suitable for constructing stable land fills and embankments.

Standards-

(1) As used in relation to air pollution, standards are the maximum permissible levels of a pollutant in the outdoor, ambient air, based on the Department of Health, Education and Welfare criteria;  
(2) In the planning sense, a set of yardsticks established in accordance with objectives and guidelines for measuring minimum requirements to maintain excellence of quality in the elements of the community's makeup.

Trunk lines-

The principal utility line to which branch lines and sub-mains are tributary.

HOUSING ELEMENT

This section of the report  
was prepared by Mrs. Zina  
Greene, Senior Planner.

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## I. INTRODUCTION

The Maryland-National Capital Park and Planning Commission feels that there is an established need to expand the planning function of government to include the housing and the immediate environmental needs of all the present and future citizens. Present development techniques have encouraged good development, but development has not resulted in the full range of housing choices needed to provide adequate housing choices for all incomes, ages and life-styles and in locations convenient to employment opportunities, community services and transportation. Further, County efforts have not been able to halt the spread of blight in older communities.

The 1964 General Plan did not include a Housing Element, although some aspects of the subject were included. As assessment of the Plan revealed that this was a serious omission. Recognizing the present needs, The Maryland-National Capital Park and Planning Commission is including a Housing Element in the General Plan Assessment that is concerned with meeting critical issues.

The critical issues are based on statistical data which was prepared for and included in the sections of the Factors Influencing Development report entitled Social Factors (Population, Housing, and Social Needs). The section on Social Factors particularly Chapters III, IV and VI (pp 55, 59, and 75) are most significant for a full understanding of the Housing Element. The material in the Social Factors section includes relevant, up-to-date data and trend analysis which are vital background information pertinent to the housing problem.

## II. BASIC CRITICAL ISSUES

The four basic critical issues on housing facing Montgomery County in 1969 are:

### A. NEED FOR GREATER QUALITY, VARIETY AND CHOICE IN HOUSING

Current regulations, which limit housing types to exclusive zones, severely limit variety and deprive citizens of a reasonable choice of housing in desired locations. Such desirable housing features as privacy, desirable view and orientation, greater useable open space and greater variety in housing design are often difficult to achieve under current ordinances, regulations and techniques. Ownership alternatives (e.g. co-op, condominium) to single family home-ownership are not generally available to the consumer.

Present codes, ordinances and regulations in Montgomery County and throughout the metropolitan area hamper new and innovative, mass-produced housing. Inefficient government procedures for processing development applications have not only raised housing costs but have discouraged an innovative building industry.

### B. HOUSING CHOICES ARE NOT RELATED TO EMPLOYMENT OPPORTUNITIES, GEOGRAPHICALLY OR ECONOMICALLY

People are forced to spend a long and inconvenient time commuting to work because a choice of housing near employment centers is unavailable. Many residential areas have no convenient access to employment centers, commercial facilities, adequate transportation, and/or health and community facilities. Many workers needed by County employers cannot afford ownership options in Montgomery County.

### C. INADEQUATE HOUSING FOR LOW- AND MODERATE-INCOME HOUSEHOLDS

There is no regional or local policy to assure the national policy of a "decent home and suitable living environment for every American family."<sup>1</sup> Low-and moderate income households have inadequate choices of both housing and location to meet

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<sup>1</sup>Housing Act of 1949, re-affirmed in the Housing and Urban Development Act of 1968.

their basic needs in Montgomery County. Some of these households are often unaware of housing or financial resources that may be available and of federal or local programs that could assist them in meeting their housing needs.

D. BLIGHTED NEIGHBORHOODS AND SUBSTANDARD HOUSING CONTINUE TO SPREAD

The lack of adequate housing resources for low-and moderate-income families throughout the metropolitan area results in overcrowding and lower maintenance in existing housing. Slums are encouraged because both the real estate and income taxes make them a good financial investment. Meanwhile, most local government agencies are neither involved nor co-ordinated in the costly process of neighborhood improvement. Some rental housing has been a source of blight because both owners' and tenants' responsibilities have not been clearly stated and enforced.

III. POLICY STATEMENTS OF THE 1964 GENERAL PLAN

The 1964 General Plan did not have a section on housing. Although there was an occasional mention of housing, housing goals, objectives and guidelines as currently defined were not included to any significant measure.

Evaluation of the goal and objective extrapolated from the General Plan indicate that neither have been totally implemented.

The housing objectives and guidelines all still apply but need further refinement and expansion. In addition, there is a need to establish a goal for housing as well as to expand the number of objectives and guidelines. Among the subject areas not adequately covered by the 1964 General Plan are: quality and choice in housing; interrelationship between housing choices and employment opportunities; housing choices for low-and moderate income levels; and blighted neighborhoods and substandard housing.

The following pages include the objectives and guidelines as they appeared in the 1964 General Plan. Each statement is briefly analyzed to determine current status, needed revisions and present applicability.

Following this is a summary of the housing recommendations made in the "Report of the Committee to Evaluate the General Plan."

1964 General Plan:

GOAL

1. Encourage greater variety of living environments by New Towns and Residential Clusters.

Some positive steps have been taken to implement this goal in Montgomery County. The following zoning tools have been added to the ordinances: Town Sector Zone, Planned Neighborhood Zone, Cluster Subdivision, and the Town House Zone. Although this represents a positive step, much remains to be accomplished in innovative ordinances and much more experience is needed to evaluate their effectiveness.

Applicability: This section should be expanded and variety in economic and social factors, as well as environment should be included in planning considerations.

#### OBJECTIVE

As defined, there were no housing objectives in the 1964 General Plan.

#### GUIDELINES

1. Establish an urban renewal program to eliminate pockets of existing blight and to prevent new blight.

Urban renewal projects are gradually coming into realization in Montgomery County. The striking difference is the new attitude of citizens and public officials toward renewal. Whereas the guidelines of the 1964 General Plan refer to "eliminating blight"--the new attitude of urban renewal can aptly be summed as "a decent home and a suitable living environment for every American family."<sup>2</sup>

In the field of "preventing new blight," limited code enforcement has been undertaken in Montgomery County. However, there again, problems of housing people has taken precedence. Thus, families cannot be evicted from sub-standard housing if there is no replacement housing within their limited financial means. As a result, code enforcement, alone, is not an effective tool.

Applicability: The orientation of this guideline should be expanded to include meeting the needs of the people as well as ridding the community of blight.

2. ACTION: "Enact State legislation making the Park and Planning Commission the official planning authority for all public urban renewal projects undertaken in the Regional District."

The Planning Commission does not have this authority in Montgomery County. However, urban renewal projects are reviewed by the Commission as to the conformance with zoning and the General Plan.

Applicability: Urban renewal projects have not been undertaken without the full support of the affected community. It is an emphasis of real individual and community renewal, not "slum clearance" that guides these projects. Therefore, it probably is best not to have a large Bi-County Agency designating Urban Renewal Areas. Identification of areas with problems (social, economic and housing) and greater innovation and flexibility in meeting community problems would be more beneficial. Therefore, this guideline is not applicable.

#### Comparison of the 1964 General Plan with Housing Statements from the "Report of the Committee to Evaluate the General Plan"

There are substantial differences in the statements about housing in the 1964 General Plan and in the "Report of the Committee to Evaluate the General Plan." The Montgomery County Ad Hoc Committee proposes that housing be available for all income levels, including the work force needed in the county. A minority opinion of the Committee proposes the provision of low and middle income housing through private enterprise.

The only recommendation specifically for implementing housing goals in Montgomery County is code enforcement. Other implementation methods suggested by the Committee which could be applied, although not intended for housing implementation, included:

- a. Development districts
- b. A development program
- c. A land bank
- d. A land tax policy

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<sup>2</sup>Ibid

#### IV. HOUSING NEEDS FOR MONTGOMERY COUNTY

GOAL--\*\*\*STRESS THE PRESENT QUALITY AND PRESTIGIOUS IMAGE OF RESIDENTIAL DEVELOPMENT IN MONTGOMERY COUNTY BY FURTHER PROVIDING FOR A FULL RANGE OF HOUSING CHOICES, CONVENIENTLY LOCATED IN A SUITABLE LIVING ENVIRONMENT FOR ALL INCOMES, AGES AND LIFE-STYLES

The critical housing issues suggest four basic needs for analysis. Thus, the following section includes, 1) Residential Quality, Variety and Choice, 2) Relationship of Housing with Community Systems, 3) Housing for Low- and Moderate-Income Groups and 4) Established Neighborhoods.

\*\*\*\*\*

#### RESIDENTIAL QUALITY, VARIETY AND CHOICE

##### OBJECTIVE

\*\*\* A. PROVIDE FOR QUALITY, VARIETY AND CHOICE IN RESIDENTIAL DEVELOPMENT

##### Exclusive Zones

Current zoning practice is concerned with separating land uses, and within given land uses, separating components (e.g., front, side and rear yard set-backs.) By its very nature our current zoning techniques limit choice. Current zoning regulations do not specifically encourage or require certain desirable qualities such as: maximizing the view, guaranteeing public and private open space for every dwelling unit, concern with exposure, and emphasis on privacy.

By dividing land into exclusive tracts, zoning seriously limits variety. The Commission might consider a hundred residential zones instead of the current eleven zones and still fall short of the multiple needs because of the exclusive nature of our zones. As builder Carl Freeman has said, "You can't satisfy

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\*\*\* Applies to a new statement not contained in the 1964 General Plan.

\*\* Applies to statements which are essentially the same as contained in the 1964 General Plan as amended.

\* Applies to statements which are direct quotes from the 1964 General Plan as amended.

the needs of people who want to live in good garden apartments if you zone them out of good residential neighborhoods.<sup>3</sup> Garden apartments at two house density would not increase the density--only the number of choices in that density range. This concept is particularly applicable to new development and not intended for application in established neighborhoods.

##### GUIDELINE

\*\* 1. PERMIT GREATER FLEXIBILITY IN RESIDENTIAL DEVELOPMENT TO MEET A BROAD RANGE OF NEEDS.

\*\*\*\*\*

##### Livability

Looking beyond our current zoning techniques, the Commission should determine what is really desired through zoning. The following considerations would be relevant:

1) Density--This should be a primary concern since density affects all the other systems (e.g., community facilities, commercial needs and circulation). Given a set density, is it really necessary to interfere with the need for choice and variety by setting small modules (lots) which regulate housing based on conformity rather than variety? What if, within a given density, the developer could space equally, cluster or stack these units to meet the market demands?

2) Environs--Set-backs, side yards and rear yards are examples of attempts by planners to provide privacy, open space, light and ventilation--or livability. However, there are many failings in the present systems. The present single family zones inhibit variety and choice. All homeowners do not want large, green open spaces; eight foot side yards are not useable; and seventeen feet between buildings restricts the building design more than it assures privacy.

Standards that apply to houses do not apply to apartments, although many people choose to live exclusively in apartments. Nowhere do our regulations require or even encourage maximum utilization of an overall site to take advantage of exposure and view.

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##### GUIDELINE

\*\*\* 2. ENCOURAGE A HIGH QUALITY OF LIVABILITY FOR ALL HOUSING UNITS.

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<sup>3</sup>"The Need for a New Deal," House and Home, October, 1959, p. 182.

### Multi-Family Housing for Families

There are many areas in the County zoned or contemplated for higher density residential use. However, each area is unique as to: (1) the housing need it can best serve, and (2) the ideal apartment design to meet those needs. For example, an apartment district adjacent to an activity center can best serve the people who like activity and generally partake of the activity around them. These are usually single persons or smaller family units whose members are likely to be engaged in similar activities at a given time. Most often, a small, compact housing unit serves their needs.

On the other hand, apartments located in quiet residential areas near good schools, parks, and youth activities can best serve larger families. These family members may vary considerably in age and activities, and need more privacy within the dwelling unit and more useable open-space and storage space than the small families who are attracted to the activity centers.

With this polarization in mind, it is conceivable that apartments designated as "family-apartments" be allowed in "family" residential areas and that adequate spatial requirements for family living and amenities be required.

#### GUIDELINE

- \*\*\* 3. ENCOURAGE EXCELLENCE IN DESIGN OF INTERIOR AND EXTERIOR LIVING SPACE TO ASSURE THAT SUCH SPACE NEEDS ARE DETERMINED BY AND RELATED TO FAMILY SIZE, THE FUNCTIONS OF DAY-TO-DAY LIVING, AND THE NORMAL POSSESSIONS OF FAMILIES

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### Recreational Facilities as Part of Residential Development

All too often multi-family developments are built with inadequate consideration of space for leisure activities (useable space as compared to open space). In conventional single family tracts, outdoor public recreation facilities are not included in development. Such space and facilities are needed to carry out a national goal of safe and decent housing in a suitable living environment.

Appropriate recreational facilities such as play yards, sun decks, indoor hobby or work shops, and swimming pools provide important opportunities for interaction among residents to promote a "community feeling" and a sense of community responsibility.

Some of the recreational and community facilities in multi-family buildings can be profitable. Those that will not be profitable should be supplied at public expense. The concept that parks and playgrounds must always be on separate, publicly owned lots or that they must always be open to the sky is obsolete. Leasing interior space to the public for these purposes or dedicating the outdoor space to public use are some of the possible arrangements that could make apartment living a more suitable living environment.

A mandatory open space requirement for all residential development has been approved by the Montgomery County Planning Board and is pending action by the County Council. This represents a major shift in community awareness of this need, but still does not require that this open-space in multi-family development be useable.

#### GUIDELINE

- \*\*\* 4. ENCOURAGE THE PROVISION OF BOTH INDOOR AND OUTDOOR RECREATIONAL AND COMMUNITY FACILITIES, AS APPROPRIATE IN MULTI-FAMILY AND SINGLE FAMILY RESIDENTIAL DEVELOPMENT

\*\*\*\*\*

### Options for Ownership

The two primary alternatives for housing in Montgomery County are renting an apartment or buying a house. Less than one percent of the housing units are available with other tenure options.

Many people who prefer apartment living are not satisfied with renting apartments and others who cannot meet the costs of owning a single family house, need housing alternatives which provide ownership options. These households, although apartment dwellers, do not regard themselves as transient occupants. They must be afforded the opportunity to invest something of themselves in the community. Homeownership is one of the most meaningful and tangible ways of "self-investment" in the neighborhood on the part of residents. Encouragement of individual (condominium) and cooperative home ownership of multi-family dwellings is a tangible means to that end.

Another option for ownership is the purchase of shares in a housing corporation<sup>4</sup> which would provide a variety of housing

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<sup>4</sup>William K. Wittausch, "The Housing Corporation," Urban Land News and Trends, Urban Land Institute, April, 1969, p. 3.



types to meet the full range of life-styles. Thus combining ownership benefits with variety and mobility, the investor could move through a life-cycle of housing needs without incurring the costs of selling or purchasing a home. His investment in the corporation could begin with his first apartment and grow as his income and needs require. This system would serve to transfer financial investment from the individual house to investment in neighborhood and community. An experimental housing corporation based on this premise has been formed in the Minneapolis region known as the Jonathan Housing Corporation.

Ownership of community open space and recreational facilities through a Neighborhood Association could be part of development procedures for all residential subdivisions. This would lower costs of individual maintenance and upkeep of property by transferring some lot space to community space. At the same time it would broaden community involvement through community ownership.

#### GUIDELINE

- \*\*\* 5. ENCOURAGE OWNERSHIP PROVISIONS FOR ALL TYPES OF HOUSING AND COMMUNITY FACILITIES

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#### New and Innovative Housing

Conventional housing construction is not keeping pace with housing demands. Mass-produced housing and housing systems can solve some of the problems of providing housing for everyone, especially for low- and moderate-income families.

Mass-produced housing provides:

1. Permanent housing at lower cost than conventional housing construction.
2. Flexibility in design and size.
3. Prefabricated components or complete units that are transported to site and constructed easily within a short period of time.<sup>5</sup>

Although prefabricated units and mobile homes may not have all the answers to housing problems, they are a definite start in the total approach of creating a housing industry that will reduce the cost of construction, maintenance and repairs, and the cost of money by reducing delays.

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<sup>5</sup>"Revolution in Buildings," Modern Metals, Chicago, Illinois.

The mobile home companies such as Magnolia, Redman, National and others are involved in numerous urban renewal and public housing developments throughout the nation.

The most dramatic effort in manufactured housing is Operation Breakthrough. Previous attempts at manufactured housing have been single, isolated efforts. Now under the aegis of the Department of Housing and Urban Development (HUD), hundreds of individuals and companies of all sizes are presenting proposals for whole systems, partial systems and even individual ideas. HUD will review these proposals and put together those firms and those ideas that will move housing construction into the twentieth century. One example of the kind of effort to expect from private industry through Breakthrough is the joint proposal to produce systems building components submitted to HUD by a consortium of 41 concrete firms with 67 plants throughout the United States.

Local government will be expected to play a major role in market aggregation by providing developed sites through direct County action, local housing agencies, non-profit groups and private developers and landowners. Another role local government must play is the revision of codes and ordinances to permit these types of dwellings. In return, all HUD funding will be given on a priority basis to those jurisdictions that actively participate in the market aggregation for Breakthrough.

#### GUIDELINE

- \*\*\* 6. ENCOURAGE THE USE OF NEW AND INNOVATIVE HOUSING SYSTEMS CONSTRUCTED ON OR OFF SITE TO INCREASE THE SUPPLY AND VARIETY OF HOUSING TYPES

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#### Speeding the Application Process

The development procedures for government agencies need to be redesigned to fully utilize the resources and productive capacities of private industry. Two methods to enable the home-building industry to be more effective and more efficient are the "one-stop shop" and the assessment district.

The "one-stop shop", or a development team, would cut red-tape and confusion by providing coordination of all local jurisdictions' processing of applications. However, this coordination would only work if sufficient authority is delegated to the development team. Once policies are established for housing goals, priority would be given those development plans which meet these goals. Possibly this could be done through a county-appointed ombudsman who would guide the application through the processing procedures. By actually assisting developers in obtaining public clearances needed to proceed on a volume basis, local government could stimulate and facilitate needed production of housing.

Public officials must exercise their authority to approve new systems which meet performance standards and to change provisions in the interest of sound innovation. Building codes have been modernized but their standardization on a regional basis is necessary for manufactured housing. This standardization could be accomplished through the Council of Governments (COG), which could function as a clearinghouse for needs of the housing industry.

This is rapidly becoming the era of the well-financed professional housing producer, who is incorporating the advances toward industrialized housing and, most of all, places a greater emphasis on design, total community, and environment.

"One reason for the past hesitancy of big business to enter the housing field is that land and land improvements (representing 15 to 25 percent of cost) have not been standardized."<sup>6</sup> Local builders have long complained that improvement requirements are never clearly stated and that often their share is far more than their "fair share." (For example, a developer of a low level tract may have to provide adequate storm sewers to handle run-off from higher tracts). The cost of public improvements could be more equitably assessed through large assessment districts before areas are scheduled for development. This would: 1) allow for even distribution of costs, and 2) provide advance accurate costs per unit to meet the planning needs of large industry.

#### GUIDELINE

- \*\*\* 7. INCREASE THE SPEED OF DEVELOPMENT THROUGH MORE EFFICIENT PROCEDURES FOR LOCAL GOVERNMENTS' DECISIONS AFFECTING DEVELOPMENT

\*\*\*\*\*

#### RELATIONSHIP OF HOUSING WITH COMMUNITY SYSTEMS

#### OBJECTIVE

- \*\*\* B. INTEGRATE HOUSING WITH EMPLOYMENT AND TRANSPORTATION CENTERS AND COMMUNITY SERVICES AND FACILITIES

#### Housing People Near Employment Opportunities

The most recent difficult task in the urban environment is the moving of people between housing and employment. Almost the

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<sup>6</sup>Charles Abrams, "Housing in the Year 2000," in Environment and Policy the Next Fifty Years, ed. by William R. Ewald, Jr., (Bloomington, Ind., Indiana University Press, 1968), p. 222.

entire labor force is concerned with making daily trips to and from work. One possible solution to this task is to provide a variety of housing near employment centers so that those people who choose to live near their work may do so. "Residential sites are preferred (other things being equal) when they are in convenient access to jobs, shopping districts, schools, and other destinations."<sup>7</sup> However, current tendencies seem to be toward providing housing without concern for convenient access to employment centers and to create employment centers without convenient housing for all who are employed.

The present requirement for long work-trips adversely affects low-income workers. Older industries are moving from the city to suburban Maryland where many of their previous wage earners cannot afford to live and where public transportation is unavailable. Meanwhile, new jobs created in the city are generally attracting a higher percentage of suburban workers. Thus transportation problems are increasing as growing numbers of people are forced to travel long distances to work.

In Montgomery County, a report prepared for the Economic Development Committee of the Montgomery Chamber of Commerce, stated that the demand for moderate-income housing is emphasized by the fact that at least 25% of the work force needed by the new science industries in the 70S Corridor earn salaries " . . . that do not enable the employee to buy a home costing more than \$20,000."<sup>8</sup>

Additional evidence of the employment problem was stated at a meeting on June 18, 1969 which included representatives from technical industry, government and education in the Route 70S Corridor. Dr. Coleman Raphael of Fairchild-Hiller Corporation, indicated that housing for their employees is one of the particular problems of the companies and government agencies in this corridor. In further discussions at the same meeting, low- and moderate-income housing was urged as the better solution. Mr. Gaughran of AEC point out " . . . there is doubt as to whether any transportation plan would suffice. He felt that low cost housing in this area is far more important."<sup>9</sup>

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<sup>7</sup>Edgar M. Hoover, "The Evolving Form and Organization of the Metropolis," in Issues in Urban Economics, ed. by Harvey S. Perloff and Lowdon Wingo, Jr., (Baltimore, Maryland: The Johns Hopkins Press, 1968), p. 244.

<sup>8</sup>M-NCPPC, "Planning for People" a staff working paper prepared by Montgomery County Planning Board by John F. Downs and Myron Goldberg, March, 1966, p. 7; (\$20,000 based on 2½ times household income).

<sup>9</sup>Proposed minutes of meeting on the 70S Corridor at National Bureau of Standards, June 18, 1969, p. 3.

The difficulties of employers in the I-70S Corridor is attracting and retaining low-income workers coincide with the findings of a recent study by HUD. This study supports the conclusion of other studies of commuting "that workers who receive lower wages and work at less skilled occupations typically have shorter home-to-work travel patterns."<sup>10</sup>

#### GUIDELINE

- \*\*\* 1. ASSURE THE AVAILABILITY OF HOUSING NEAR INDUSTRIAL, COMMERCIAL AND TRANSPORTATION CENTERS

\*\*\*\*\*

#### Economic Balance

It is recommended that the County follow a development policy that assures economic integration for the following reasons:

- 1) The labor force: If Montgomery County is to have a well balanced economic base, it will need a variety of workers (blue collar through executive).
- 2) Economy in land use policies: The present development pattern of economic groups in Montgomery County results in higher capital improvement budgets to provide roads and transit, community services, and public facilities. It severely limits choice of housing location and often causes extreme hardships in commuting to work.
- 3) Freedom of choice: The present pattern denies the opportunity of social interchange that characterizes a lively, open, and democratic society. While people continue to prefer neighbors of similar background and interests, a recent poll of decision-makers showed a definite preference for economic integration on a neighborhood-wide basis.<sup>11</sup>
- 4) Quality of design: There is no conflict between high design standards and economic integration.

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<sup>10</sup> Plant Relocation and the Core City Worker, U.S. Department of Housing and Urban Development, 1967, pp. 3, 42.

<sup>11</sup> Harold Wolman, "How is Federal Housing Policy Made?" Journal of Housing, National Association of Housing and Redevelopment Officials, Washington, D.C., April, 1968.

The present requirement for long work-trips adversely affects low-income workers. Older industries are moving from the city to suburban Maryland where many of their previous wage earners cannot afford to live and where public transportation is unavailable. Meanwhile, new jobs created in the city are generally attracting a higher percentage of suburban workers. Thus transportation problems are increasing as growing numbers of people are forced to travel long distances to work. In addition are the problems of suburban employers in obtaining domestic and similar service workers, due to the difficult and time consuming work-trips now required.

#### GUIDELINE

- \*\*\* 2. PROMOTE AN ECONOMIC BALANCE OF HOUSING COSTS RELATED TO EMPLOYMENT OPPORTUNITIES

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#### Feasibility of Economic Integration

If the principle of economic integration in major new developments (e.g., town sectors, activity centers, and planned neighborhoods) is applied, then some form of subsidy to housing costs may be required. Land costs in Montgomery County generally preclude low- and moderate-income housing.

The current need for such subsidy was emphasized in a recent Montgomery Council work session on housing, August 13, 1969. Mr. Alex Green, Chairman of the Local Housing Authority, told the Council that there is a real need for rezoning--"a subsidy for housing through rezoning"--or cash grants to the Authority as the difference between permitted cost ceiling for land and the size of the lot, so as to retain the current zoning.

One form of subsidy is the use of development controls which would incorporate bonus provisions in return for providing low- and moderate-income housing. A second is government purchase of development rights.<sup>12</sup> The latter can be compared to the purchase of scenic easements without actual ownership of the land.

Powers of public land assembly could be made increasingly available to assist in programs of land development. Present day zoning for major developments that are limited in number and strategically located often creates monopoly values in land. Getting these sites on the market at the right time is often difficult. Even if some of the necessary land is available, it may not be at a size which is optimal to achieve the desired planning results.

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<sup>12</sup> Daniel Mandelker, "New Incentives and Controls," Environment and Policy, American Institute of Planners, 1968.

Another use of public land assembly powers would be to utilize the return to the citizens of the increment in land values created through their tax investments. Higher land values are created through publicly funded improvements such as rapid transit stations, parks, airports and civic centers. Although the value is created by the taxpayer dollar, the return to the taxpayer is presently minimal.

Another major problem of land costs is the present real estate tax system. This system taxes the value of unimproved or under-improved land so lightly that land owners are under no pressure to sell. So the price of our land--which reflects the capitalized difference between the rent the land can be expected to earn and the taxes it must expect to pay--has soared. "The home builders have voted three to one that this land price inflation is their number one problem in trying to meet the country's need for better housing."<sup>13</sup> This tax-subsidized inflation in land prices is a major reason why private enterprise cannot meet the housing needs of low- and middle-income families.

GUIDELINE

\*\*\* 3. ASSURE THE ECONOMIC FEASIBILITY OF PROVIDING HOUSING FOR ALL INCOME LEVELS

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HOUSING FOR LOW- AND MODERATE-INCOME HOUSEHOLDS

OBJECTIVE

\*\* C. INSURE AN ADEQUATE SUPPLY OF HOUSING FOR LOW- AND MODERATE-INCOME HOUSEHOLDS

Meeting Housing Needs

A housing policy which assures housing for low- and moderate-income households would also provide for the County's own young and older citizens. Both new households and retiring households need choices in housing which are not generally available in Montgomery County. Ownership options at modest income levels are very limited.

The concept of responsibility must be seriously reassessed. To date, housing for low- and moderate-income households has been considered the responsibility of the jurisdiction in which the households already live. However, these questions may be asked if they are the source of labor for adjacent jurisdictions, are they not the human resources upon which suburban industry relies? And, if they represent a human resource, should not housing be provided by the jurisdiction that relies on them?

<sup>13</sup>Perry Prentice, "The Death of Cities," Architectural Forum November, 1965.

If voluntary methods are not forthcoming, the U. S. Congress may eventually consider alternative methods.<sup>14</sup> One alternative may be Federal intervention in suburban policy to meet the staggering and nearly impossible task now left to the central city, including the legal right of the central city to purchase housing or sites in the suburban jurisdictions for the purpose of providing publicly assisted housing to persons who work in the jurisdictions where it is provided.

As an example of the central city problem, the District of Columbia, with a total of 226,069 housing units and a land area of only 61 square miles, has 11,280 units of publicly assisted low-income housing and 6,300 units of publicly assisted moderate-income units for a total of 17,580, (8% of the total number of units). In 1966 the District government estimated its need for publicly assisted housing units at 92,000 units.<sup>15</sup>

Presently, Montgomery County has 1,700 units of publicly assisted housing.

The number of publicly assisted low- and moderate-income housing units in suburban Counties and the District is summarized in Table I.

TABLE I

FEDERALLY ASSISTED LOW & MODERATE INCOME HOUSING  
BY COUNTY JURISDICTION JUNE, 1969

	Square Miles	Publicly Assisted Housing, Existing or Committed	
		Low-income	Moderate-income
District of Columbia	61	11,280**	6,300**
Arlington County	24	0**	0**
Fairfax County*	416	140**	188**
Montgomery County*	494	560 <sup>a</sup>	1,145 <sup>b</sup>
Prince George's County*	488	762 <sup>c</sup>	3,183

\* Does not include incorporated cities.

\*\* Source: Housing Policies and Programs for Metropolitan Washington, 1969, Metropolitan Washington COG.

<sup>a</sup>Includes 160 units for elderly.

<sup>b</sup>Includes 817 units for elderly.

<sup>c</sup>Includes 125 units for elderly and 487 units of rent supplement.

<sup>14</sup>Harold Wolman, op. cit.

<sup>15</sup>"Problems of Housing People in the District of Columbia," National Capital Planning Commission, 1966.

## GUIDELINE

- \*\*\*1. PROVIDE FOR LOW AND MODERATE-INCOME HOUSING TO MEET EXISTING COUNTY NEEDS AND ANTICIPATED FUTURE EMPLOYMENT NEEDS.

\*\*\*\*\*

### Public Assisted Housing

National Policy and Experience. Until 1965, all publicly assisted housing was in "projects." The Housing Acts of 1965, 1966 and 1968 provided the first significant changes and additions to the national housing program in 16 years. Significant changes in publicly-assisted housing included: 1) rent supplement program; 2) leasing of privately owned dwellings for re-leasing to low-income families at subsidized rents; 3) acquisition of existing dwellings by local authorities for renting to low-income families; and 4) homeownership through public housing.

These new concepts of public housing have been eagerly accepted by housing officials as well as having had wide public acceptance. The social failure within projects, the social failure within projects, the social stigma of projects, and the economic realities of cost per unit has made this the least popular approach to housing low-income families. Many cities now use scattered sites exclusively.

Two examples are New Orleans where all future public housing development is to be on scattered sites and St. Paul where public-housing is integrated into existing neighborhoods on single family lots, where possible. The only concentrated projects in St. Paul will be for the elderly. In Minneapolis, after years of limiting scattered sites for public housing to urban renewal and model city areas, the city council passed a resolution to make scattered site public housing acquisition citywide in scope.

Economic and Social Considerations. Scattered-site publicly assisted housing of low-income families has resulted from economic and social needs. Economically, new housing is often too costly to meet HUD unit cost restrictions. The cost of land in particular (with the exception of urban renewal projects) combined with construction costs often make the cost of new housing prohibitive. Thus, the purchase (and often rehabilitation) of existing units provides an economical source for housing low-income families.

Secondly, democracy is based on a socially and economically mobile society. The opportunities for both geographic and socio-economic mobility must be kept open for all people and at all levels. Public housing developments in their traditional "project" orientation have failed socially because there were few opportunities and no incentives for social and economic mobility.

There is a tremendous range with respect to need, capabilities, mobility, potential, style of life and cultural patterns of the low-income households and no one scheme or housing system is generally suited to the needs of all. Since the housing supply for low-income families must be substantially increased, it is essential that the additions be developed within the framework of inclusiveness and heterogeneity. The more upwardly mobile families will then have the opportunity to move outward.<sup>16</sup>

Local Policy. In Montgomery County, all publicly assisted housing for families follows the scattered site principle. New developments are generally limited to 50 units and these developments are spread throughout the County. In addition, from 1/3 to 1/2 of all authorized units for families are individual housing units, located throughout the County, and leased or purchased by the housing authority for re-leasing to low-income families. What is strikingly different from County policy and past concepts of publicly assisted housing is the emphasis on upward mobility as illustrated below:

- 1) Section 23<sup>17</sup> --Leased Housing. Families renting private housing are subsidized by the Housing Authority. As their income increases the subsidy decreases, and upon reaching the maximum limits of eligibility for subsidy, the Housing Authority rewrites a direct lease between the tenant and the owner.
- 2) Acquisition of Existing Housing. This takes advantage of the economies of filtering process in housing and often has the added advantage of rehabilitation of sub-standard units. Due to the new process of home ownership through public housing, the leasing of these houses can be converted to a home ownership plan and eventually to direct ownership.

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<sup>16</sup>For a more complete analysis of the social considerations the reader is referred to: More Than Shelter, Social Needs in Low and Moderate-Income Housing, The National Commission on Urban Problems, Research Report No. 8, Washington, D. C., 1968.

<sup>17</sup>Housing and Urban Development Act of 1965.

- 3) Home Ownership Through Public Housing. The third example of the encouragement of social and economic mobility is in the design of new, publicly assisted housing developments. Emphasis on home ownership is reflected in the design of the units (e.g., town-houses) whereby each unit is separately metered and heated so it can be spun-off into direct ownership. Most of the new developments in Montgomery County are designed with this feature.

GUIDELINE

- \*\*\*2. DISTRIBUTE PUBLIC HOUSING ON A COUNTY-WIDE BASIS WITH EMPHASIS ON ACCESSIBILITY TO EMPLOYMENT CENTERS, SHOPPING AND RECREATIONAL FACILITIES AND WITH EMPHASIS AWAY FROM AREAS WHICH ARE ECONOMICALLY IMPACTED.

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Low and Moderate-Income Housing as Part of New Development

The community builders of the metropolitan area have the professional and economic resources to meet the housing goal of the County without sacrificing quality of community service. For example, Levitt & Sons and Boise Cascade are members of a fourteen member Council of Housing Producers that last year built 10 percent of the nation's total production of low and moderate-income housing units. These units represented 18 percent of the Council's aggregate production of 28,428 housing units.<sup>18</sup>

Providing the economic incentives and directives for meeting this guideline is the combined responsibility of the County Council, the Planning Board, the Board of Education, the Washington Suburban Transit Commission, the Washington Suburban Sanitary Commission and any other elected or appointed officials who affect development in the County.

To assure that new slums are not created, it is important that the housing supply in new developments is able to be utilized interchangeably by families within a relatively broad range of income. There should be no new development which is too meager to appeal to people who can exercise some choice. Using the flexible methods of housing assistance discussed in the section on "Publicly-Assisted Housing" families can rise out of assistance programs while continuing to live in the same housing unit. Likewise, other units can be tapped to serve families through assistance programs as previous units spin-off into the private market.

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<sup>18</sup>"The Need for Private Enterprise in Public Housing," Council of Housing Producers, Los Angeles, Calif., March, 1969.

GUIDELINE

- \*\*\*3. ASSURE THE PROVISION OF LOW- AND MODERATE-INCOME HOUSING AS PART OF LARGE-SCALE DEVELOPMENT AS AN OPTION IN SMALLER-SCALE DEVELOPMENT.

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Utilizing Government Land

One of the major drawbacks in the housing field is the high cost of land that contributes to the overall cost of housing. Land at reasonable cost is often unavailable for publicly and privately-assisted housing. Problems also result because there is not an adequate supply of land for needed housing within urbanized areas. Utilizing existing government land and government air-rights can help alleviate this shortage. Public land could be made available from the federal, state and local governments for housing with the government providing the subsidy in the form of a grant of land or air-rights.

For example, the Atlanta Housing Authority planned 600 units of low-and middle-income housing in an urban redevelopment area which became available when President Johnson announced that Atlanta was one of three cities which would receive federal surplus land to meet critical urban needs.<sup>19</sup>

A bill presently pending in Congress would authorize the use of air-rights over federal building for low-and moderate-income housing.<sup>20</sup> The Department of Transportation is studying the feasibility of using air-rights over highways to meet housing needs.

Within the County there is an established order for offering the use of surplus land. At present, the local housing authority is not given a change to buy any or part of this surplus land before it goes up for public sale. Further, the County has never considered the possibility of selling the land but retaining development rights to assure the construction of economically balanced housing and a full range of community facilities.

GUIDELINE

- \*\*\*4. UTILIZE EXISTING GOVERNMENT LAND WHICH MEETS GOOD HOUSING SITE CRITERIA TO INCREASE THE NUMBER OF AVAILABLE SITES FOR MEETING HOUSING NEEDS.

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<sup>19</sup>Phil Garner, "Atlanta Awards Housing Part.," The Atlanta Journal, Monday, December 9, 1968.

<sup>20</sup>House Bill HR-12898, presently pending in Public Works Committee.

## Housing Assistance

An important part of the difficulty in housing for low- and moderate-income families is their lack of knowledge about the procedures available to them. Many financial services are generally not available to these families through banks because of their limited income. Housing assistance service provided by the County could help alleviate these problems by providing families with advisory services to assist in the location and financing of both new and improved housing.

Financial counseling and courses in consumer protection and housing maintenance and improvement are among the social services that should be integrated with meeting housing needs. These services are often already available in the County, but the responsibility of program coordination should be clearly delegated.

### GUIDELINE

\*\*\*5. ASSIST HOUSEHOLDS IN LOCATING AND FINANCING HOUSING AND IN HOUSING MAINTENANCE.

\*\*\*\*\*

### ESTABLISHED NEIGHBORHOODS

#### OBJECTIVE

\*\*\*D. PRESERVE AND ENHANCE THE QUALITY OF HOUSING AND ENVIRONMENT IN ESTABLISHED NEIGHBORHOODS.

#### Coordinate Public Improvements with Code Enforcement

Difficulties in neighborhood improvement most often center around reaction to forcible compliance with code enforcement.<sup>21</sup> In addition when owners begin to repair their property there is a problem in getting the county or municipality to carry out the public improvements in the same area at the same time. This is a crucial issue because there is a direct correlation between areas with code violations and areas with deficient community maintenance and services (e.g., rats, broken curbs and sidewalks, pot-holes, and lack of adequate or outdated community facilities such as park, recreation programs, and schools).

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<sup>21</sup>For a discussion on this subject see Christopher J. Bellone, "Tenant Responsibility, Short Term Goals, Self-Help and Neighborhood Pride," Journal of Housing, National Association of Housing and Redevelopment Officials, November 10, 1968.

Considerably more effort and substantial public funds are needed to assure and maintain public improvements in areas where the private sector has begun required rehabilitation. It is necessary to realize public responsibility in systematic code enforcement through a more positive approach stressing greater coordination of public and private expenditures and efforts. All agencies in the local government structure should participate in all code enforcement programs to maximize and ensure true and lasting neighborhood rehabilitation.

The Workable Program requires a systematic code enforcement program coordinated with community improvement. However, in Montgomery County this coordination is only on paper and has not been effected in any real sense. Successful community rehabilitation will require this cooperation in fact.

### GUIDELINE

\*\*\*1. COORDINATE THE INFUSION OF SUBSTANTIAL PUBLIC FUNDS WITH COUNTY CODE ENFORCEMENT PROGRAMS.

\*\*\*\*\*

### Rental Negligence

Rental negligence has been a growing problem in some areas of the county and has resulted in blighted neighborhoods and depressed property values. It results in part from the lack of education and/or respect for property on the part of some tenants; from the owners of speculative multi-family properties who use them as "tax shelters" and not "investments," and from the absence of provisions and regulations in local ordinances that would control the quality of the rental units.

With a current vacancy rate of less than one percent in garden apartments, one can expect further strain on the County's rental housing for families as apartment prices rise and some households have to "double-up." This will be particularly critical in modest, older areas.<sup>22</sup>

As an example of positive action, the City of College Park, Maryland, recognizing the problems of controlling the quality of rental housing as early as 1966, adopted a policy as part of the Housing Code that requires licensing and regulation of all rental dwellings. This was to ensure the protection of the occupants and to enhance the property values. Another recent example is in Prince George's County where the County Commissioners are presently considering an amendment to this effect in the County Housing Code.

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<sup>22</sup>Eugene B. Sieminski, Market Metrics, Carl Freeman Associates.

Rental negligence also results in part from the Federal tax system. Property is often purchased as a "tax shelter" rather than as an "investment" and is held only as long as the tax-reduction serves the owner. Table II shows how accelerated depreciation can be used as a tax-deductible loss and how double-declining balance depreciation works on a fairly typical project with a \$1 million building and \$1 million mortgage.<sup>23</sup>

TABLE II  
ILLUSTRATIVE EXAMPLE OF TAX-DEDUCTIBLE DEPRECIATION\*

Year	Maximum Depreciation	Taxable Income	Tax to be Paid
1	\$80,000	\$38,510	-\$11,553
2	73,600	-31,030	- 9,309
3	67,710	-23,990	- 7,197
4	62,290	-17,360	- 5,203
5	57,310	-11,100	- 3,330
6	52,730	- 5,080	- 1,524
7	48,510	- 440	- 132
8	44,630	5,880	1,764
9	41,060	11,050	3,315
10	37,770	16,030	4,809

\*Source: "How to Save Money on Taxes," House and Home, October, 1969. Example based on a \$1 million building and a \$1 million mortgage in 1959.

GUIDELINE

\*\*\*2. DISCOURAGE RENTAL NEGLIGENCE AMONG OWNERS AND RENTERS

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Community Improvement

Neighborhood improvement implies not only removing the physical blight of the community but also meeting the housing needs of the residents. To be really successful, County efforts have to prevent the spreading of blight as well as eliminating existing blight. Thus it is necessary to analyze some of the cause of blighted neighborhoods.

<sup>23</sup>"How to Save Money on Taxes," House and Home, October, 1959.

<sup>24</sup>President's Committee on Urban Housing, A Decent Home, 1968.

First is a basic housing need that cannot be met elsewhere. Families living in blighted areas generally live in overcrowded conditions.<sup>24</sup> If they could meet their housing needs elsewhere, they would not choose to live in a deteriorated neighborhood.

Second is the current real estate tax system which taxes building improvements so heavily and the land so lightly that it makes slums a very profitable real estate investment.<sup>25</sup> This combined with intricacies of home financing and general unfamiliarity of these intricacies by low and moderate income households, create a ready market for unscrupulous real estate transactions.

In approaching the problems of existing blight, the Neighborhood Development Program (NDP) of the Housing and Urban Development Act of 1968, provides an excellent tool for positive neighborhood revitalization. It is particularly adaptable in areas where the improvement effort combines conservation and clearance and is differentiated from previous improvement programs by its flexibility and adaptability to changing local conditions.

Another method is the Federally Assisted Code Enforcement program whereby loans and grants for individuals for code enforcement improvements are available under the Housing Rehabilitation Grants. The program encourages cooperation and teamwork between citizens and county government in meeting their respective responsibilities.

Another possible tool in meeting the problem of blighted neighborhoods and substandard housing would be for public agencies to acquire takeover easements of property maintenance.<sup>26</sup> Where necessary in order to secure an improvement in housing conditions, the agency would buy the right of dwelling occupancy. This would eliminate the present need for threat of criminal proceeding against owners who fail to meet code regulations. Powers possess under takeover easements could be used whenever buildings fell below minimum standards. Substandard buildings could be repossessed and rehabilitated and returned to private control.

GUIDELINE

\*\*\*3. EMPLOY POSITIVE PROGRAMS IN ACHIEVING COMMUNITY IMPROVEMENT

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<sup>24</sup>President's Committee on Urban Housing, A Decent Home, 1968.

<sup>25</sup>Perry Prentice, Op. Cit.

<sup>26</sup>Daniel Mandelker, Op. Cit.



