A CASE STUDY OF GROWTH MANAGEMENT PRACTICES (MONTGOMERY COUNTY, MARYLAND)

by

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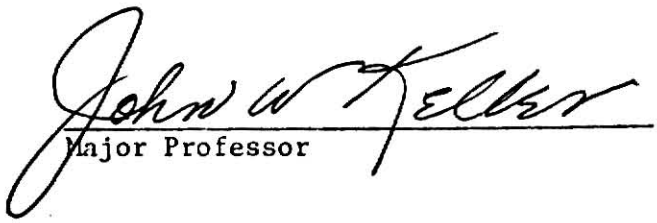

Major Professor

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PART I

INTRODUCTION

THE NEED FOR IMPROVED GROWTH MANAGEMENT TECHNIQUES

Throughout the United States, local governments are finding that decades of uncontrolled growth have harmed the environment, undermined the tax base, and contributed to a lessening of the quality of life experienced by many Americans.

Although the most direct concern for control of growth begins at the local level, there are a number of factors beyond the local level of influence, e.g., the availability of new investment capital and federal loan guarantees, and attraction for labor, translated directly into demands for additional land use. As a result, a solution to these problems may involve participation at the regional, state, and federal levels to effectively influence growth. For example, state delineation and regulation of areas of critical state concern, and the development of regional growth allocation plans bargain out future acceptable levels of growth.

At present, the primary means to control growth is through the regulation of land use administered at the local level. In regard to the use of controls to manage growth, one author notes,

> There is relatively little research on the effect of land use controls in operation. Therefore, the choice is to delay action until exploratory work can be completed or to proceed and monitor for desired and undesired effects and to alter controls as the negative aspects emerge. The former choice is not politically practical in most instances, but the latter choice is rarely being followed either: no body of knowledge or insight is being recorded for future use by the operating agencies themselves, and no comparative evaluations across the system have been made.[1]

Without adequate knowledge of how controls have functioned in the past, with regard to their side-effects, it is difficult to predict a certain future. For example, although it is highly suspected that large lot zoning may lead to what has been characterized as urban sprawl, conclusive evidence of this depends on a variety of other factors and circumstances taking place. The solution to this problem would be for future urban researchers to study the operation of past developments and land use controls in operation to ascertain their effects. It would seem that impact assessments applied to the consequences of past developments, given any one particular control or combinations of controls, would provide some of the essential missing data links by which to develop more sophisticated growth policies and development strategies in relation to land use. The lack of proven strategies has produced a series of unfortunate effects on the urban fringe:

1. Imbalance of growth among types of uses.

2. Inability to provide public services to match private development.

3. Soaring tax rate on property due to inefficient provision for public services.

4. Poor quality of services due to rapid growth.

5. Land speculation; poor design, causing uncontrolled character and quality of private development; destruction of the natural landscape.

6. Inability to implement the planning process; lack of time to develop solutions; inadequate administrative and legal mechanisms.

7. Development of negative policies concerning social, racial, and metropolitan solutions; formation of defensive incorporations and annexations; unwillingness to provide proper housing and facilities for diverse economic, racial, and ethnic groups; irrational tax policies.[2]

To repair the harm that has been done, or at least to minimize any further damage, local governments placed restrictions on land use, first through public nuisance doctrines at the turn of the century, and later through zoning provisions adopted by many communities as early as 1926. More recently, local governments have been trying to develop ways of predicting more accurately kinds of growth likely to occur in a given area and estimating the consequences of such growth. With reliable information on the probable type and intensity of future growth, communities can more effectively guide future development. One such community,

> . . . Salem, Oregon, has proposed the imposition of a boundary beyond which urbanization would be restricted. This boundary would follow the city's master sewer plan, allowing development when the sewer facilities are adequate to provide necessary services. A moratorium is imposed in the issuance of all building permits until adequate sewer systems are available. The plan has not yet been tested by the courts, but since it is related to the furtherance of a comprehensive plan, if the master sewer plan follows a definite time schedule, it will probably be upheld.[3]

The need for increasingly more sophisticated techniques to manage growth is evidenced by the pressures that urban areas can expect to undergo in decades to come. The American population will grow well into the twenty-first century--even though there has been a substantial re-evaluation of the number of births expected to occur. The shift from rural to urban areas can also be expected to continue.

> In 1900, 60% of all people in the U.S. lived in rural areas. By 1970, the percentage had declined to 20%, with 58% of this population living in urban areas of 50,000 or more. Most growth in metropolitan areas has taken place in the suburbs. Between 1960-1970 the population in central cities increased 6.4%, while the population in suburbs increased 27.7%. Most of the increase in central cities came about through annexation.[4]

> The number of households is increasing even more rapidly than the number of people. During the 1960's, while total population increased by about 11%, the number of households increased by about 17 percent.[5]

For the purpose of this study growth will be defined as consisting primarily of increases in population and economic activity. This type of growth translates directly into increases in the development of residential, commercial, and industrial uses. This in turn can be translated into additional demands for transportation facilities, parks, schools, solid waste and sewage treatment to mention just a few. Without adequate controls, and forceful growth policies, growth may eventually result in overburdened facilities, increased taxes, and damage to the natural and the man-made environment.

Increases in numbers of people and households explain only part of urban growth. Increasing affluence explains much of the rest. High incomes mean higher levels of consumption, more auto ownership, recreation, travel, and purchase of larger homes. More people with more money, with a preference for low density living, will lead to an increase in the wasteful development patterns that cities have experienced in the past unless they can find new mechanisms to more efficiently allocate and direct the future distribution of our land resources. If growth occurs as it has in the past, land will not be intensively developed but a great amount of it will be processed, resulting in urban sprawl. If present proliferation of single family houses on large lots continues, the expected decentralization within urban regions will make most of those who live in them even more dependent on the automobile than they are today. In a recently published book, The Cost of Sprawl, quantitative analysis revealed what many community experts have believed for years: a planned unit of clustered and higher density land uses is much more efficient than a non-contiguous, low density, single family development

pattern. Planned higher density communities can save forty-four percent in investment and energy costs and produce forty-five percent less pollution.[6]

Studies of this nature have created increasingly skeptical attitudes toward the relative merits of growth as it has been experienced in the past andhave led many people to call for a halt to increases in population which citizens feel they can no longer adequately support. Apparently faced with a choice between the high cost in pollution and wasted energy of low density housing or a high psychological cost in crowding in high density housing, many people have become doubtful of the merit of any growth at all. One author notes that there are some inherent difficulties with this mistrust of growth:

> But in fact, this no-growth attitude is a misunderstanding of basic planning and growth dynamics which lead to higher tax rates, inadequate school capacities, costly provision of public facilities, damage to the environment, and inefficient use of land. The blame is incorrectly placed on growth per se, while failing to realize that any over-reaction--such as a public no-growth policy--means the community in effect is also turning its back on deeper social problems such as housing, transportation, employment, economic and racial discrimination, and the environment.[7]

The environmental problems and the increasingly threatened quality of life associated with unrestricted growth cannot be ignored. In order to cope with these problems, cities must consider how much of what kind of growth they want, and where, when, and how it should be guided. Doing this will render somewhat obsolete ways of dealing with community planning as it has been traditionally related to new development. The President's Task Force on Land Use and Urban Growth found the following:

> There is a new mood in America. Increasingly, citizens are asking what urban growth will add to the quality of their lives. They are questioning the way relatively unconstrained, piecemeal urbanization is changing their communities and rebelling against the traditional processes

> of government and market place which, they believe, have inadequately guided development in the past. They are measuring new development proposals by the extent to which environmental criteria are satisfied--by what new housing or business will generate in terms of additional traffic, pollution of air and water, erosion and scenic disturbance.[8]

The need for more explicit growth policies is discussed in a report entitled People, Policy and Growth, produced for Orange County, California.

> Many people today believe that local government should adopt a population growth policy. Others believe the opposite. Critics and supporters alike may be assured of one fact, however, Orange County will continue to grow. And it will have a growth policy--either consciously adopted or as the result of uncoordinated action by many agencies. The real questions with which a growth policy must deal are how much? How fast? Where? For how long? and to what end?[9]

The fundamental questions that this report and others like it have attempted to produce is "How can local governments respond to and attempt to influence population pressures in order to achieve the highest possible quality of life for its present and future residents?" The answer may lie in coordinating local governmental policies which combine to influence population size, rate of population growth, and the geographic distribution of that population in such a manner that a desirable quality of life is achieved.

It appears that growth policy is an old idea whose time has come. The devices of management have taken time to develop through the democratic process, and public support had to develop for expanded growth management. Controls to guide growth had to evolve, and techniques to measure the costs and benefits of growth had to be developed. Although all of these areas can still be said to be in their infancy, the time has come for the development of more sophisticated approaches to managing growth.

FOOTNOTES

[1]Robert C. Einsweiler, Michael E. Gleeson, Ian Traquair Ball, Alan Morris, and Diane Sprague, "A Comparative Description of Selected Municipal Growth Guidance Systems," in Management and Control of Growth, 3 vols., ed. Randall W. Scott (Washington, D.C., The Urban Land Institute), Vol. 2, p. 285.

[2]Robert H. Freilich, "Development Timing, Moratoria, and Controlling Growth," in Management and Control of Growth, Vol. 2, p. 362.

[3]Ibid., p. 365.

[4]Gunnar Isberg, "Controlling Growth on the Urban Fringe," in Management and Control of Growth, Vol. 3, p. 29. See also Office of the President Report on National Growth, Washington, D.C., 1972, Vol. 3, pp. 14, 20, 21.

[5]William K. Reilly, The Use of Land: A Citizens' Policy Guide to Urban Growth (New York: Thomas Cromwell Company, 1973), p. 79.

[6]The Council of Environmental Quality, The Cost of Sprawl (Washington, D.C.: U.S. Government Printing Office, 1974).

[7]David E. Stahl, "Cost Repercussions of the No Growth Movement," Urban Land, December 1973, p. 18.

[8]Reilly, p. 33.

[9]A report prepared by the staff of the General Planning Program, Orange County Planning Department, Orange County Population Growth Policy and Development Strategy Study, People, Policy, and Growth, 1972, p. 14.

PART II

METHODOLOGY

This thesis is designed to investigate how management processes can be merged into a comprehensive strategy to guide future development. A case study has been designed to examine the basis of growth management and policy formation in one rapidly urbanizing county. Montgomery County, Maryland, has experienced pressures from rapid growth in the Washington metropolitan area. The case study will serve as a model that might be used for the development of growth policies by other jurisdicitons seeking to control, for example, how much new development should occur, how fast it should take place, and where it should happen. The solution to these questions appears to lie in the development and implementation of a growth strategy adopted and enacted at the local level of government.

The case study focuses on the following questions:

(1) How has the county proceeded to develop a growth management program?

In order to answer this question, it will be necessary to trace the evolution of growth management practices in Montgomery County, observing and measuring changes that have taken place in the development of the system.

The primary method of investigation to ascertain how the system has developed over time was the study of documents consisting of plans, policies, memorandums, and personal communications in agencies of the Montgomery County government. During the period of investigation (spring and summer, 1975), the researcher attended meetings and hearings of the Citizens

Advisory Committee on the County Growth Policy, the public hearing on the proposed County Growth Policy, work sessions with the County Council and Planning Board over the content of the proposed policy and meetings of the Land Use Committee of the Metropolitan Council of Governments.

The researcher was a part-time employee for the Maryland National Capital and Planning Commission, where he first became exposed to the concept of "growth policy" which formulated the subsequent basis of this research.

(2) How has the timing of development and the choice of its location been dealt with in the policy making process?

Timing the provisions of public services to coincide with new development needs is one of the keys to the success of a growth management program. Therefore, an important focus of any study to probe into the nature of growth management is to examine how the timing of development has been treated in the system and how it might be improved.

The literature review of this study has been designed to provide a further source of information upon which evaluation of the case will proceed. To aid in evaluating the success of the study area, the cases of Ramapo, New York, and others will be examined. Additional input will be drawn from an examination of the documents of Montgomery County's growth plans: the Adequate Public Facilities Ordinance, the Ten Year Water and Sewerage Plan, and the Capital Improvement Program, including implications of the proposed Interim Sewerage Allocation Policy.

(3) How has the county established a process by which to coordinate development policies with other local jurisdictions?

Coordination is examined in the study, for its potential to incorporate

state, regional, and federal plans into the policy making process formed at the local level. In the past it has been difficult for growth management systems to coordinate planning practices with other levels of government even though this is a crucial aspect of developing a "comprehensive" growth policy.

To ascertain how coordinated planning of programs and policies is taking place in the study area, the Metropolitan Council of Governments' proposed Metropolitan Growth Policy will be examined to discern its potential for achieving coordination of growth related policies amongst a hierarchy of levels of government. Montgomery County's own growth policy will also be examined to ascertain how the county has coordinated development policies within its own jurisdiction.

The discussion does not attempt to suggest how coordination might be improved, although this is implied, but rather it will outline an example in support of the inherent theme of this study.

(4) How can the county strengthen its ability to manage growth through the development of growth policies?

To suggest how the existing system might be improved, the study relies upon information from the literature review and case study, to suggest refinements that might be incorporated into the development of future land use policies.

This question will form the conclusion to the study. The questions thus have been formed to elicit the range of opportunities that might be combined or augmented to influence desired amounts of future growth within an appropriate time frame.

Montgomery County was deemed to be a good testing ground for this

study because it has developed a "conscience" about developing a management system that has at its basis the parameters of location, timing, and cost. This system is also regarded by many as among the most highly advanced management systems in the country, as are other Washington metropolitan governments. The researcher felt that an illustration of their attempts to manage growth would provide a good case in study.

PART III

REVIEW OF LITERATURE

CHAPTER 1

DEVELOPING A LOCAL GROWTH PROGRAM

> How can a community develop and implement an effective growth program or growth policy? Actually, there exists in every community a growth program that is in operation. The elements that are present include present public attitudes towards growth, master plans, zoning procedures, building permits, capital improvement programs, transportation plans, taxing policies, sewer and water extension policies, including a variety of other measures.[1]

The greatest problem that local governments have had in dealing with the management of existing policies is that most local governments have not effectively mobilized these components into a coordinated growth program aimed at shaping future urban form in accord with local goals.

Principles that should be integrated into the development of future growth policies, in order to overcome the deficiencies of past development programs include the following.

MARKET AND ECONOMIC ANALYSIS

Market projections have traditionally been the economic justification for allocating community resources in the face of new growth. Market indicators, or some type of socio-economic analysis of overall market conditions that may prevail in the future, should, thus, be included in a planned growth strategy. Studies of this nature will determine the need for, as well as the location of various major types of land uses which are to be provided for residential, commercial, and industrial sectors of the community. Accurate

market projections will enable the community to allocate public services in a more timely fashion to accommodate new development activity, preventing costly time lags between public and private sectors of influence. Market analyses are reliable only in the short run. However, long term population and economic projections can be used as general parameters within which to develop longer range policies. Market information should be utilized by both the community and the developer to determine the need for as well as the locations of various major land uses to be anticipated within a specified time frame.

GOALS AND OBJECTIVES

Goals and objectives for the community should be designed specifically to address its individual needs. Without identification of the specific areas of the community which are in need of program direction, the community will have little success in fulfilling them. These goals and objectives should address major policies regarding facilities and services, environmental protection, housing, employment, transportation, property values, financial planning, and management directed towards the achievement of a desired quality of life. Goals will only be realistic to the extent that they reflect community attitudes. According to George Sipel, City Manager of Palo Alto,

> . . . the importance of this step should not be underestimated since the determination of critical issue areas directs the scope of the study and areas to be studied in the remainder of the process. The critical issue areas should include both more technical concerns of staff people, as well as the more normative consensus of the political leaders of the community.
>
> In my community, we began with staff consideration of critical issues and followed that with personal interviews with city council members and planning commissioners. From this we were able to gain strong consensus from a variety of public issues that fall into three categories: (1) population, housing, and neighborhood character, (2) employment and new residential development, and (3) transportation.[2]

ASSESSING THE IMPACTS OF GROWTH POLICIES

The identification of development objectives, outlined in the community goals statement, and reflected in the general plan is only the first step in the fulfilling of such objectives. Before implementation can proceed, an assessment relating to a variety of impact measures should be carefully analyzed. Questions concerning whether or not new development will pay its own way, how new development will affect the current capacities of natural resources, and how the existing infrastructure will support new development are among those which should be answered by impact analyses. The discussion now will consider analyses of impacts on several aspects of urban life.

Appendix A includes a list of forty-eight criteria for measuring the impacts of land developments. Many of these techniques are not new, but seldom in the past have they been utilized in a comprehensive fashion.

Social Impact Analysis

Social impact analysis is still a rather loosely defined term, but it translates into the measurement of needs of people and of how new developments can be designed not only to minimize adverse impacts on people but at the same time to promote the best "quality of life" possible. One author notes that in order to achieve such a task,

> . . . local officials in each community should weigh each new development, residential, commercial, industrial, and public, against a check list of major considerations or impact measures. Each community should develop its own checklist, based on local objectives. The measures should emphasize end impact on citizens whenever possible.[3]

Fiscal Impact Analysis

Economic and fiscal analyses should be regarded primarily as vehicles for bringing about a change of attitudes associated with the costs of growth.

Costs are born in varying degrees by the public sector, the private sector, and individual households. To date, the state of the art of impact assessment has been most concerned with costs incurred in terms of dollars and cents. Most typically some form of cost revenue application is used which determines the net change in governmental revenues, less operating expenses to maintain supporting facilities. In other words, fiscal impact measures attempt to discern which types of development pay for themselves, and which do not. Developments that appear to alter the community revenue status and the pattern and demand for services should be closely evaluated to ascertain the community's need and its desire to foster such types of development.

Cost revenue applications start by projecting the costs of providing a newly developing area with services such as water, sewer, solid waste disposal, police protection, and education on a yearly basis over a given period of years. The costs are then matched against revenues that local agencies would expect to receive over that same period from development. The outcome of the analysis will depend on the tax structure of the community. Those communities that rely on property taxes as their primary revenue source will likely reach different conclusions about the desirability of certain types of growth from communities whose revenue projections take into account sources of revenue such as sales tax and user charges.

One of the most noted cost revenue studies to take place in recent years occurred in Palo Alto, California.[4] A cost revenue projection of the development potential of the foothills over a twenty year period indicated that the aggregate cost at both high and moderate densities, particularly for school services, would substantially exceed revenues from taxes, municipal services, and other sources. On the basis of these and other findings, the

city adopted an open space ordinance on 7,500 acres. It should be noted that

> . . . cost-revenue studies evaluating the burden of new development on municipal resources, when used to justify withholding permission to build, have had a mixed reaction in the courts. Padover v. Township of Farmington, Michigan, affirmed the right of a town to channel development to minimize burdens on the local school system and other facilities. (The town must prove a reasonable relationship between existing conditions and the public welfare.) In other cases, the courts have perceived a direct conflict between the right of a municipality to regulate growth and services and its duty to provide them. National Land and Investment Co. v. Kohn states, "Zoning is a means by which a governmental body can plan for the future--it may not be used as a means to deny the future. Zoning provisions may not be used to avoid increased responsibilities and economic burdens, which time and economic growth bring."[5]

Developments which consist mostly of condominiums, luxury high-rise apartments, and one-bedroom garden apartments--all of which attract households with few school age children--tend to be a fiscally beneficial. Multi-bedroom garden apartments and moderately priced three- and four-bedroom detached housing units cause fiscal deficits.[6]

In most local jurisdictions, public education is the largest outlay; it can be as high as eighty percent of operating expenditures in some areas. Therefore, the factor which usually determines whether a residential development will result in fiscal surplus or deficit is the projected incremental expenditures for public education.[7]

This does not mean that local governments should attempt to discourage all types of new development that does not pay for itself. Careful consideration of the trade-off between a strong fiscal position and other socio-economic goals of growth policy make this a difficult issue to deal with. Certain types of fiscally less desirable new growth may assist in fulfilling major growth policy objectives. For example, low and moderate

income housing projects, while not providing the greatest contribution of revenues, may help to provide a more balanced mix of housing choices.

Analysis of Public Service Capacities

An offshoot of the discussion on impact assessment concerns the evaluation of public service capacity. This assessment of the feasibility of new development is a crucial function of the planning process. In hundreds of localities across the nation, sewer moratoriums prohibiting further development have been enacted due to insufficient available capacity. Some of the moratoriums, as exemplified by the experience of Fairfax County, Virginia, resulted in housing scarcities, inflated prices, and depression throughout the building industry. Disastrous consequences like these may be avoided with careful planning of growth servicing facilities in accord with local planning agency projections of population and economic trends forecasted for the area. In evaluating service capacities, responsible agencies should not overlook the relationship of expenditures to quality of services. Certain facilities may be pushed to capacity by new development before adequate relief can be afforded; then quality is allowed to slip in the meantime.

Estimates developed for capacity measures should take into consideration how capacity of different facilities will vary over time as a result of anticipated levels of new development.

> Capacity measures should be stated in terms of (1) the percentage of existing capacity utilized before development, (2) the percentage of capacity to be utilized after development, (3) the expected time until new capacity can be added to relieve any present or anticipated overload.[8]

It should be noted that the addition of new capital facilities is sometimes beyond the direct control of local government. Such is the case in California, where special districts for fire protection and parks are common. In addition,

voter approval may be requested, which may further complicate matters in attempting to anticipate whether future levels and amounts of facilities can be provided. Nevertheless, local governments should attempt to coordinate and facilitate the provision of such information amongst all interested levels of governments, in order to insure as clear a picture as possible of a sound development future.

Environmental Impact Analysis

Only recently has land use planning become sensitive to environmental factors. The Environmental Protection Agency's regulations, particularly the Clean Air Act and the Water Act, place this federal agency into the arena of land use planning.[9] The National Environmental Policy Act of 1969 required that a detailed statement of environmental impacts be prepared by federal agencies prior to the implementation of every major federal action, significantly affecting the quality of the human environment. It is the most useful tool currently at our disposal to integrate environmental planning with land use. Since the adoption of this act numerous state governments have adopted similar requirements to be undertaken by agencies of the state. The results of these laws have been to develop standardized procedures and measures for preparing impact statements relating to the environment. The development of this process at the local level in relation to a variety of development decisions can be expected to put environmental considerations in the forefront of the community development process.

Statements of environmental impact might most typically include a project description and some form of environmental inventory or description of the environmental setting. Typical areas which may be discussed in an impact statement are noise, air pollution, drainage, soils, soil erosion,

and other biological considerations. Also included are any adverse environmental effects which cannot be avoided and what the planned corrections are that might insure the preservation of a safe environment if the project is to be implemented.

In 1970, the EPA adopted the Clean Air Act.

> Section 110 of the law required the states to establish preconstruction review procedures to determine the impact of new sources of air pollution. The law has the authority to prevent construction of these facilities which would have a deleterious effect on the ambient air quality. The states must also develop long-range plans by 1975 to deal with existing sources of pollution and to determine the effect on the air quality of future growth and development.[10]

Although the act gives EPA the authority to control emissions, land use controls and state review are important elements. The kinds of controls on land use are not specifically enumerated, but the general contention is that land use controls should be used to achieve air quality control.

> In 1972, the Water Pollution Control Act was adopted. This Act declares a national goal to eliminate discharge of pollutants into navigable water by 1985.[11]

Perhaps the most important provision of this act, relating to land use, is Section 208, which establishes a procedure under which states or regional agencies are required to develop regulatory programs to control various types of non-point source pollution. Non-point sources refers to run off from agricultural, mining, and construction activities. Where these activities are noted to occur, a plan must be prepared setting forth land use requirements to control the extent of such pollution. Also, plans must address the problem of disposal of solid waste that may affect ground water or surface water quality. EPA would not be able to achieve its goals, in relation to water quality, if states were not required to develop a comprehensive plan for water pollution prevention.

The Coastal Zone Management Act of 1972 was developed to preserve and protect the resources of the nation's coastal areas and wet lands. The act encourages state and local governments in developing and maintaining management programs to achieve wise use of critical resources which, in the past, have become increasingly exploited.

The sum of these federal environmental regulations, with state governments acting as delegatory agencies, is a significant and, in some instances, a decisive element of a growth policy for county or local governments to be concerned with. It is, therefore, of paramount concern for county and local policies to manage growth to make environmental regulations consistent with both federal requirements and local policy guidelines to protect the environment.

Local governments should inventory the natural resource base which exists in the community as an initial step to environmental planning. Such a resource base might include an inventory of water resources and soil factors, including identification of prime agricultural land, woodlands, and areas affected by natural hazards. This inventory will be closely allied with some form of critical area delineation, which singles out critical resource areas which should be preserved and protected from development activity on the basis of health and safety regulations.

Once these areas have been identified, and restrictions to their development outlined, the growth management program will have a more comprehensive base upon which to plan for future growth. It should be noted that the regional nature of many types of environmental problems, e.g., air and water pollution, will call for increased regional participation for the solution of the problems of environmental planning.

THE DEVELOPMENT OF A GROWTH STRATEGY

With the information made available from various types of fiscal, social, and environmental impact analyses, the community can devise a strategy based upon specific programs and policies tailored to community goals. The choice to be made will depend upon analysis of the tradeoffs and alternatives that must be viewed in light of a number of competing objectives.

COMPREHENSIVENESS

> The development of a growth policy should be a comprehensive process. It should recognize that decisions related to the quantity and location of housing and commercial and industrial developments will have spillover impacts on numerous social, environmental and economic factors--water and air pollution, social mix of the ommunity, economic activity, government finances, local taxes, traffic congestion, and open space availability. Thus, a "systems approach" is needed which recognizes the dynamic nature of municipalities and the interaction of social, economic, and environmental factors on one another.[12]

THE ADOPTION OF INTERIM CONTROLS

Since the development of a growth program may take from months to years, there is a need to adopt interim measures to keep the situation from growing any worse or to avoid losing opportunities to change the direction of current consequences of growth that may be deemed undesirable. The courts have long upheld the right of a municipality to deny building permits to a developer when they would be used in conflict with a proposed change about to take place in the zoning ordinance. The cities of Livermore and Pleaston, California enacted interim controls for temporary solutions to the problems of overcrowded schools, sewage, and water supply until relief could be

supplied to these systems. These controls were later struck down by the court, alleging inverse condemnation or taking of property had occurred because the plaintiff had been deprived of all beneficial use of his property.[13] For a further discussion of interim measures, consult Chapter 3, Interim Controls.

Timing of Development

Particular emphasis in developing the growth strategy should be timing the future rate and amount of anticipated growth with the provision of public facilities to service this growth.

Traditional comprehensive planning has often produced plans which indicate a desired land use map for fifteen or twenty years in the future; the plans have basically been concerned with the location of growth, not with the amount or timing. However, now many management systems are attempting to anticipate amounts of growth that would result from planned development and to adjust these policies to influence the extent as well as the location of growth. For example, Boca Raton, Florida, and Boulder, Colorado, have attempted to specify upper limits to population they feel they can reasonably accommodate. The city of Petaluma, California attempted to limit building construction permits to 500 a year, which was struck down by the courts as restricting the right to travel, on April 26, 1974.[14] On August 13, 1975 the decision was reversed by an Appeals Court.[15]

The timing of future development activity through planned public investment in facilities to guide growth is crucial concept to be incorporated into the growth management strategy. Timing has typically been an aspect that has been left out of most master plans. Locations have been readily identifiable, while when development will take place has often been left

up to the private market response to development needs. The question of determining the appropriate timing of development is perhaps one of the most crucial choices to be selected in the formation of a growth policy or management practice.

> Commentators have long been aware that traditional tools at our disposal are not sufficient to deal with the increasingly crucial problems caused by rapid urbanization and resulting urban sprawl. It has been argued through the years that what is needed is comprehensive land-use control which regulates the pace of development in and around urban areas. One means of accomplishing this is the concept of timing and sequential controls.[16]

Many of the adverse effects of rapid growth can be mitigated if growth can be phased in terms of time and location to coincide with the proper provision of public facilities.

The need for this approach is summarized by Henry Fagin:

1. The need to economize on the costs of municipal services and facilities.
2. The need to retain municipal control over the eventual character of development.
3. The need to maintain a desirable degree of balance among various uses of land.
4. The need to achieve greater detail and specificity in development regulation.
5. The need to maintain a high quality of community services and facilities.[17]

One use of a staged development plan is illustrated in the case of Ramapo, New York. Ramapo, similar to many communities, was experiencing exaggerated urban sprawl at the fringe and high costs in providing facilities to accommodate this growth. Ramapo combated this problem by using the traditional technique of capital improvement programming, which is the process by which capital facilities are financially planned and allocated over time, the usual period being six years. Ramapo, however, adopted a three phase eighteen year capital improvement program, which set forth the municipality's capability

to provide public facilities over three six-year periods. It then proceeded to adopt a provision in the zoning ordinance, incorporating the capital budget outlay for the programmed facilities. This approach has become known as phased zoning.

The ordinance in Ramapo was implemented by establishing a system of special permits. Before a permit could be granted for residential development, a total of fifteen development points had to be accumulated from five different categories. These included public sanitary sewers, drainage facilities, recreational facilities, roads, and fire houses within appropriate distance of development. A developer would not receive a permit unless he accumulated the necessary points or was willing to provide the facilities himself. In essence, the timing scheme enabled the city to control the sequence and location of development, eliminating "leap frog" practices which have contributed to urban sprawl.

The approach sounds simple, but why has this technique surfaced at this late stage in the city planning process? The legal implications are overwhelmingly complex. Most briefly enumerated, some of the implications include the following considerations:

> . . . there were four basic arguments opposing the validity of the concept, all of which were held to be without significant basis: (A) did the controls amount to an absolute prohibition of subdivision? (B) was the effect of the controls exclusionary in nature? (C) did the ordinances pass constitutional muster by having a rational basis? and (D) were the ordinances within the scope of the enabling legislation?[18]

In 1972, the New York Court of Appeals upheld the legality of a development timing scheme passed by the town of Ramapo in 1965. This decision has been hailed as one of the most significant decisions in the

field of land use law since the legality of zoning was established in 1926 in Village of Euclid v. Ambler Realty.[19] The court rejected the contention that a taking of property had occurred. The court relied on the fact that because the regulation was of a certain duration, development was not denied, only postponed. Another ruling of the court was that phased zoning makes time as well as space a consideration, and thus feasibility for residential use becomes a function, not only of the location of land, but also of the timing of development. Since this criterion justifies the restriction of development in the first place, it should provide an adequate basis for treating land which is inadequately serviced differently from land which is adequately serviced. The court also placed strong emphasis upon Ramapo's need to adjust their financial resources to the demand for essential services in the face of a rapidly growing population.

Another of the attacks was that the ordinance was exclusionary in that Ramapo's defense was that phased zoning was linked to a comprehensive plan which included low and moderate income housing to be incorporated into the community. The regulation was found also to be reasonable in that adequate provision had been included to overcome exclusionary effects. The phased zoning plan was further justified because when financial resources are inadequate to furnish essential services, there is a rational basis for phased growth.

> The most significant aspect of the case, is that it represents the first time any court in the United States has upheld the concept of long-term restriction on development in metropolitan areas through comprehensive planning, or an exercise of the zoning power without compensation. Now for the first time, regions, states, and the federal government, as well as municipal governments, have the tools to develop a rational growth policy that balances suburban development with inner-city revitalization and new community development.[20]

Enumerated below are some suggested guidelines for regulating the timing of development that should be addressed in any growth policy attempting to regulate the timing of development.

(1) Strengthening public control over the timing of developments is highly desirable.
(2) The essential element of development timing control is a plan and commitment for public investment to assimilate growth.
(3) In the absence of a publicly adopted plan for the specific commitment of resources for sewers, water and sewage treatment plants, roads and schools, in a definite period of time, policies to slow or stop growth can only be considered exclusionary.
(4) Development timing controls should solidify plans for regulating the spatial character of growth.
(5) A development plan that attempts to regulate development by deferring some of it into the future, and establishing density by spatial regulations, should make further rezonings difficult to justify once the spatial character has been predetermined initially.
(6) Regulating development timing control at regional or metropolitan levels of government is preferable to allowing its exercise by localities.
(7) Timing schemes developed in this manner will help ensure that exclusionary and spillover effects are not shifted to other localities.
(8) Local development timing ordinances should be considered exclusionary devices unless the locality can demonstrate responsiveness to regional housing needs.
(9) Development timing ordinances that apply only to residential development are inherently suspect as selective growth policies.
(10) A locality that permits commercial and industrial development to proceed without phasing, so it can take advantage of tax benefits while postponing residential development, is following a selective growth policy rather than a controlled growth policy.[21]

IMPLEMENTATION PROGRAM

Once a growth management strategy has been developed, methods to implement this strategy would include at least short range action programs, comprehensive rezonings, and capital improvement programming and budgeting. These concepts will be discussed under separate headings.

Short-term Action Programs

According to the American Law Institute's Model Land Development Code: "A Local Land Development Plan shall include a short-term program of sepcific public actions to be undertaken in stated sequence by specified governmental agencies."[22] This program would, in effect, be the basis of determining what is permitted when. Long range master plans should be continued to be developed for long range periods of 20-25 years;within these long range plans should be developed short range programs which are time phased to result in the programming of public facilities.

Comprehensive Rezoning

> The community will need to revise its zoning ordinance and update its zoning map to be consistent with master plan designations. The process may require up-zoning to allow higher densities and down zoning to prevent or minimize development in a comprehensive manner, consistent with the plan.[23]

Capital Improvement Programming and Budgeting

> The community needs to develop and adopt a capital improvement program, which is normally a comprehensive multi-year projection for public facilities, services and associated costs. The capital improvement program can be used as a major timing element in the implementation of the master plan. In addition, it can be a major input into the development of an annual capital budget. The primary value of a well conceived management capital improvement program is that public facilities will be in place as new development is constructed.[24]

CONCLUSION

To develop a planned growth strategy, a community should consider the need for comprehensiveness, market analysis, formulation of community goals, adoption of interim controls, social impact analysis, fiscal impact

analysis, and environmental impact analysis. From the development of these studies a growth strategy emerges based on the analysis of the tradeoffs posed by various alternatives.

The timing of development activity provides one of the most promising means to direct the development of a local growth policy. Timing schemes will be contained in short range action programs which are phased to result in the delivery of public services keyed to permitted private development. Once a strategy has been developed the adoption of a growth policy generally takes one of two forms: either as a separate policy statement and/or resolution by the local governing body, or as part of the comprehensive or master plan.

FOOTNOTES

[1]Steve Carter, Kendal Bert, and Peter Nobert, "Local Government Techniques for Managing Growth," Management and Control of Growth, Vol. 2, p. 333.

[2]George A. Sipel, "Too Much Growth: Guidelines for Action," in Public Management Strategies for Controlling Growth. International City Management Association, May, 1974, p. 10.

[3]Philip S. Schaenman and Thomas Muller, "Land Development: Measuring the Impacts," Management and Control of Growth, Vol. 2, p. 494.

[4]Livingston and Blayney Planning Consultants, Open Space vs. Development, Final Report to the City of Palo Alto, California, Foothills Environmental Design Study, 1971.

[5]Reilly, p. 158. See also Padov v. Township of Farmington 132 N. W. 2d 687 (Mich. 1965) and National Land & Inv. (O. v. Kohn, 215 A. 2d 597, 610 (PA. 1965).

[6]Thomas Muller, "Fiscal Issues of Local Growth," in Public Management Strategies for Controlling Growth. International City Management Association, May 1974, p. 5.

[7]Ibid., p. 5.

[8]Philip S. Schaenman and Thomas Muller, Towards a System for Measuring Impacts of Land Development, The Urban Land Institute, p. 26.

[9]U. S. C., 1857, 49 U. S. C 1421, 1430 (1970) PL 92 - 500 (1972).

[10]Pamela C. Mack, "Federal Environmental Laws," Management and Control of Growth, Vol. 3, p. 424.

[11]Ibid., p. 425.

[12]Carter, p. 33.

[13]Fred Bosselman, David Callies, and John Bunta, The Taking Issue (Written for the Council on Environmental Quality, 1973. Available U.S. Government Printing Office, Washington, D.C.), p. 44.

[14]375 F Supp 574 (1974, Northern District of California.

[15]The Federal Court of Appeals reversed the lower court ruling, thereby upholding the validity of the Petaluma Plan.

[16]Freilich, p. 366.

[17]Henry Fagin, "Regulating the Timing of Development," Management and Control of Growth, Vol. I, pp. 298-299.

[18]Freilich, p. 367.

[19]Euclid v. Ambler Realty Co., 272 U.S. 365 47S. Ct. 114, 71 L. Ed 303 (1926).

[20]Herbert M. Franklin, "Controlling Urban Growth But For Whom?" Management and Control of Growth, Vol. 2, p. 95.

[21]Ibid., pp. 95-97.

[22]The American Law Institute, A Model Land Development Code, Draft Number 7, 1974, p. 89.

[23]Allan A. Hodges, "Planning Partnerships," Management and Control of Growth, Vol. 3, p. 524.

[24]Ibid., p. 524.

CHAPTER 2

THE INTERGOVERNMENTAL CONTEXT FOR POLICY PLANNING

Agencies of all levels of government have powers that influence the pattern and extent of local growth. Federal agencies, state agencies, local and regional planning commissions are all forces at work which may significantly alter or affect the actions of local governments.

In an effort to encourage states to establish comprehensive land use planning programs, legislation has been sponsored by Representative Morris K. Udall of Arizona (H R 3510) and Senator Henry M. Jackson of Washington (S 984). The major difference in the two drafts concerns energy siting--a separate action of Jackson's bill, and not included in Udall's. At the heart of both bills is the transfer of power to regulate the use of some types of privately owned land from local to state control when regional or state interest is affected by the use to which land is put. In the Udall Bill the states would have three years to formulate a state land use policy and program which, among other things, would include areas to be designated for critical state concern.

FEDERAL

In the past "federal and state laws have been concerned with the consequences of growth, rather than redirection of the forces of growth and environmental change."[1]

There are a variety of federal activities assumed or known to have impacts on growth and development: these include grants and loans to state and local government, location and employment levels of federal facilities,

construction of public works, taxation, loan guarantees, and regulatory activities.

The absence of federal policy guidelines to provide an impetus in badly needed areas of land use reform has most recently resulted in proposals before Congress to adopt some form of national land use legislation.

STATES

The states are uniquely suited to managing growth and development because of the constitutional powers they enjoy and their relationship to local governments. The states are vested with the opportunities to combine local and non-local perspectives. They have decisive powers to override the actions of one local government when those actions may adversely affect other local governments. State government has, therefore, emerged as the instrument perhaps best suited to carry out the responsibility for development of growth strategies. Some of the powers of states to develop growth policies are enumerated as follows:

> 1) A state may strengthen or otherwise modify local powers to deal with the problems of growth and development. 2) A state establishes its own taxing powers and those of its constituent jurisdictions. 3) Tax policy can be a powerful incentive or disincentive to growth and development. A state has the power to regulate and establish standards over a wide array of activities, including those affecting the environment, health, education and other aspects of the quality of life. 4) A state is an investor and through its own direct funding powers may take an active hand in shaping growth and development patterns and setting quality levels for services within its boundaries.[2]

Some of the most significant efforts to manage growth at the state level have occurred in Vermont, Hawaii, Maine and Florida, which have enacted statewide land use legislation with potentially important policy implications

for the evolution of state growth policies and the maintenance of environment quality. An excellent discussion of these programs can be found in The Quiet Revolution in Land Use Controls.[3]

The Hawaiian legislature passed its land use law in 1961 to curb speculation, to preserve agricultural land, and to maintain open space. The land use law created a State Land Use Commission which was directed to divide the entire state into four districts, conservation, agricultural, rural, and urban. Within each district, land uses must be consistent with the nature of each district. More recently, the state in 1973 introduced "carrying capacity" as a factor in the formation of an economic growth policy. Carrying capacity of an area, such as a region or a state, can be defined as the ability of the natural and man-made systems of the area to support demands of additional use. For example, what is the capacity of water, soils, air, institutional structure, and the ability of governmental services to support new development? Carrying capacity has a long history in resource management, but not until recently has it been applied to planning for urban and regional ecological systems. These trends and others being enacted illustrate the changing emphasis in the formation of growth policies and management practices at the state level.

In the state of Maryland the State Department of Health has veto power over the county sewer and water plans and exercises the authority to place areas under building moratoriums for health reasons. Maryland, under the Environmental Protection Agency, administers the federal regulations concerning interim sewage treatment facilities. The Department of Health also is given responsibility for administrating air quality control legislation. Under these regulations, the state now must approve the construction of almost any substantial commercial, residential, or industrial development.

The power of these and other state and federal activities is a significant and, in some cases, a decisive element of a growth policy for county and local governments. It is, therefore, important to make local, county, and statewide growth management policies complementary to one another.

LOCAL

Public concern for the quality of life and for better control over growth and development is most evident at the local level. It has been city and county governments which have experimented most with various techniques to guide land development activities, to modify economic growth, or to prevent change in environmental quality within their jurisdiction. One of the most important innovations taking place in the management of growth at the local level is the role of councils of governments, and regional planning agencies, in organizing and implementing growth policies. The development of these groups of cooperating local governments has been a relatively quiet but important revolution on the development of policy formation since the early 1960's. Ten years ago, there were approximately twenty-five councils of government, a handful of transportation agencies, and large numbers of special districts and authorities established to carry out functional programs. By the end of 1973, there were six hundred councils of governments. As forums for planning and development, the regional institutions coordinate individual state and local plans and programs.

A typical example of such an agency is the Association of Bay Area Governments, whose purpose is to attempt to solve regional planning problems. Although one of the major functions of the agency includes comprehensive regional planning, the agency cannot directly force cities or counties to

comply with its plan. The plan serves as an influential framework within which member governments may work out their own plans. This lack of governmental power to implement plans is a typical limitation of regional agencies. Another function of this regional agency is serving as a clearinghouse for federal funds, attempting to insure that federal programs are in conformity with area wide plans. Third, this agency coordinates its planning programs with those of state and federal agencies. The importance of this regional planning body and others, in the area of growth management, should not be underestimated: they are probably best equipped to oversee the many interrelated elements that influence growth. Without a regional perspective of local growth controlling decisions, localities may be inclined to shift the burdens to other communities, assuming that matters such as water pollution or intercity rapid transit are beyond their jurisdiction.

In municipal decision making, the city council is the basic local growth decision maker. It passes land use ordinances and has final say in other land use decisions made by the planning commission. In the past, most city councils have directed their policies at either promoting or accommodating growth, through attracting new types of industry and commerce which brought to the city added jobs and tax base. Recently, however, like many other governmental agencies, councils are awakening to their responsibility to provide a better balance of growth.

The planning commission is another important local governing body which makes influential decisions regarding growth. This commission is made up of citizens generally appointed by the local governing body. The most important duty of the planning commission is to have prepared a general plan for the city and to advise the city regarding legislation to implement the

plan. The planning department is the professional body which undertakes planning studies requested by the council and in turn presents them to the planning commission.

Special Districts

Special districts are sometimes set up to administer one particular service which taps a resource not confined within a single political jurisdiction or which serves an area not coincident with the political boundaries of cities or counties. The most common special district is the school district. Other districts provide such services as supplying water, building roads and bridges, and controlling sewage disposal. In some instances, these facilities or services may be provided through a department of public works. Those districts most important in facilitating or discouraging local growth are the school, transportation, water, and sewage districts. In the past their efforts have often been to spur growth and suburban sprawl by the advance programming of facilities wherever and whenever new subdivisions are opened. Special districts and their appointed or elected officials are important decision making forces regarding growth.

Fair Share and Regionalism

> Absent any state or federal allocation of growth to a locality, there would seem to be two ways of determining its "fair share" of growth. One way would be to use market indicators; the other would involve achieving agreement within a region on a growth allocation plan.[4]

These allocations are determined at the metropolitan level as a basis for achieving metropolitan social objectives or to offset claims of exclusion or discrimination at the local level from locally operated control systems.

Under current practices local governments might compete for desirable

types of growth amongst each other and attempt to discourage some types of undesirable growth so long as it did not engage in discriminatory activity. This approach essentially leaves planning where it has been all along, finding the least undesirable approach to adjust to the inevitable. The only problem with this approach is that quite often significant environmental and economic effects are shifted beyond local government borders into other jurisdictions. This has commonly been referred to as "spill over" effects, and most local governments have had little incentive to examine regional solutions to these problems. One solution, however, might be the development of regional fair share allocation plan.

> A regional growth allocation plan would, without federal and state policies, also start with regional market forces. But instead of accepting as necessary the market's distributional forecasts, a regional plan would try to negotiate a redistribution of growth, which would place a higher value on public objectives--such as inadequate housing supplies, efficient public transportation, environmental protection, urban revitalization, or fiscal equity--than on private values represented by market projections. In the absence of a regional political process, through which "fair shares" of growth might be negotiated, or prior to the conclusion of such negotiations, a local government would be justified in basing its growth policies on a realistic appraisal of its share of the regional responsibility for serving the total amount and kinds of growth. For a suburban county, this approach recognizes a responsibility to improve on its performance in low and moderate income housing.[5]

THE MANAGEMENT SYSTEM

The concept of a management system containing all growth inducing or controlling variables lends itself most readily to the idea of shared decision making. The management system incorporates an integrated view of the development of all the controlling, guiding, or influencing elements employed to achieve mutual objectives of the system. "In this respect, it implies an

integrated, systematic view of all elements in the system, even though they may be decentralized and incremental."[6] By this definition, all governments have a development management system and a growth policy. The need for careful management of this system is reflected in the fact that, in the past, decisions have been made by various levels of governments without knowing the connections or the likely effects of such decisions. Where the existence of such weaknesses can be shown, separate controls are needed to strengthen the process. This necessarily entails delineating those areas where local decision makers may be able to get the first word in, and those areas of least influence over local control.

In order for the management system to function optimally, both public and private decisions will need to be coordinated to make certain that various elements in the system are functioning in accordance with mutual goals. For example, a locality or region pursuing a growth limiting policy would also want to coordinate private decisions in relation to new investment. This coordination must not only take place at the local level, but at a hierarchy of levels.

> A total program for dealing with land use and environment concerns must have many facets. It involves the planning and programming of areas and projects, the establishment and enforcement of standards and controls, coordination of many different public and private activities, the conduct of programs of education and information, and the channeling of investments and expenditures towards certain predetermined objectives in ways calculated to achieve desired development patterns and conditions. Such a program must involve a number of state agencies, virtually all local and regional governments, and the full range of educational institutions.[7]

Figure 1 illustrates a state land use planning model and serves as an overview of ways local, regional, and state planning processes should intermesh. This job is far too broad a responsibility for any one agency; rather,

THIS BOOK CONTAINS NUMEROUS PAGES WITH DIAGRAMS THAT ARE CROOKED COMPARED TO THE REST OF THE INFORMATION ON THE PAGE.

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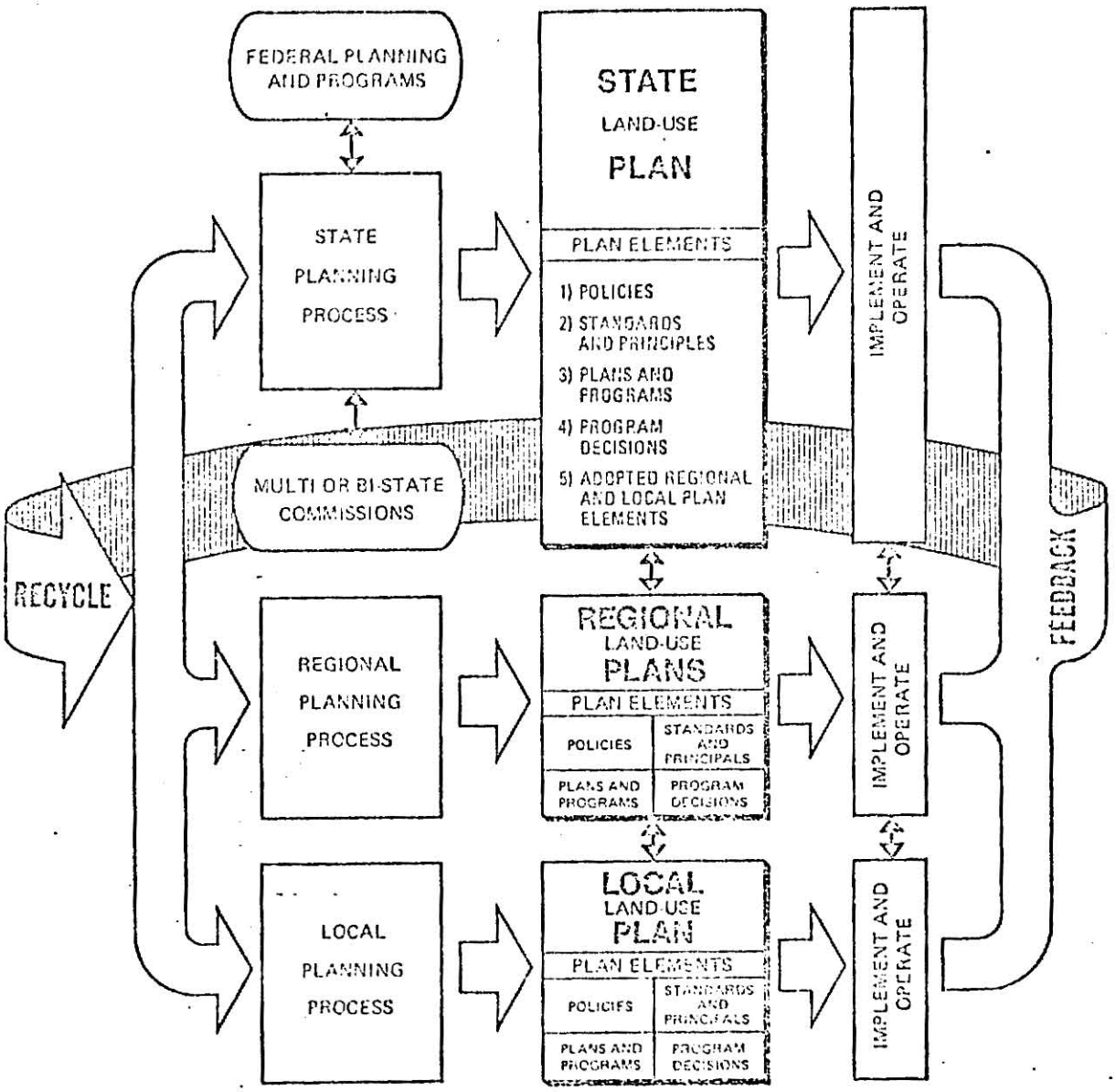


Figure 1

A State Land Use Planning Model

*Rodney Engelen and Jack Gourguechow, "Framework for State and Regional Land Use and Environmental Planning" (American Institute of Planners, 56th Annual Conference Papers - Part 1, Environmental and Land Use Planning, 1973)

ways must be found to help a number of organizations work effectively toward common ends. The feedback mechanism depicted in the diagram between local, regional, and state land use plans serves as the coordination link between levels of government.

CONCLUSION

The unified management systems approach is one of the key driving forces to implement policy. "The focus of a development management system, however, will be on decisions, not plans. Plans become one of the many tools to guide, influence or direct acceptable development decisions."[8] In the past too many incremental decisions have been made concerning development without its relationship to other parts of the system. Many local governments have often helped to perpetuate this problem by pursuing only their own goals and interests. In many large metropolitan areas there may be hundreds of autonomous governing units. This multiplicity of governments makes integration often a difficult task. The ability of strategies to control growth will depend on how successful policy makers at each level of government are in integrating the concept of shared decision making.

FOOTNOTES

[1]Royce Hanson, "Growth Control: The Role for Regionalism," Management and Control of Growth, Vol. 3, p. 293.

[2]Report on National Growth and Development, prepared under the direction of the Committee on Community Development, by The Department of Housing and Urban Development, Washington, D.C., 1974, p. 14.

[3]Fred Bosselman and David Callies, The Quiet Revolution in Land Use Controls, (prepared for the Council on Environmental Quality, 1971).

[4]Hanson, p. 294.

[5]Ibid., p. 295.

[6]Einsweiler, "Comparative Description of Municipal Guidance Systems," Management and Control of Growth, Vol. 2, p. 285.

[7]Carter, p. 343.

[8]Einsweiler, p. 285.

CHAPTER 3

TECHNIQUES TO CONTROL LAND USE

This chapter extends the discussion of some of the regulatory techniques that can be used to implement the objectives of the growth control program. It should be noted, at the outset of this discussion, that the specifics of each local situation will determine the unique limits and opportunities that would make one technique more appropriate for one situation than another.

Almost all municipal governments can influence the pattern, standards, and timing of development activity in many ways--both direct and indirect. These might include construction of public facilities, regulations over pricate building activity, the use of various incentives and concessions, including its ability to persuade. In most localities a number of techniques need to be applied since each is limited in what it can do. The comprehensive plan will typically call for an equally comprehensive implementation program, integrally relating each tool one with another in an attempt to achieve common objectives.

Because it is beyond the scope of this study to outline all these techniques, Appendix B outlines a list of specific techniques or systems elements incorporated across a range of eleven case studies. These elements appeared in a study entitled Comparative Descriptions of Selected Municipal Growth Guidance Systems.[1] They include a wide range of possible tools used to control growth management. Since Montgomery County is one of the eleven guidance systems illustrated in this study, the chart provides an easy

comparison of that locality's controls with those of other planning areas. By way of an index to these control elements, Appendix B also incorporates a short definition of each one of the fifty-seven elements enumerated in the guidance system.

The remainder of the chapter elaborates on this general framework for growth control, discussing some of the specific control techniques in further detail. The discussion organized in this manner will reflect how combinations of these controls can be adjusted to complement a theory of growth management outlined in the previous chapter. The selection was made to show how a number of traditional techniques could serve to achieve growth management objectives. One of the major findings of the Comparative Descriptions of Selected Municipal Growth Guidance Systems was that integration of control techniques was probably one of the unique contributions to the literature in the systems studied.[2]

In Ramapo, for example, there are a number of innovative linkages of more or less traditional controls. For example, the system combines capital improvements with the requirement that sufficient levels of adequate facilities should be present prior to the granting of building permits. This approach puts emphasis on programming and shifts the system from private initiative to public investment as a basis for permitting private development.

> Four criteria should govern the consideration of any one or more land use controls.
> (1) Is the control legally defensible. Legal counsel should explore current statutes and regulations as well as court precedents.[3]

Many experts in the field of land use controls are of the opinion that local governments could impose more stringent controls than now exist, without additional state legislation. (Since the right of localities to regulate

land development is derived from the police power designated by the states to local government, controls should conform to legal boundaries established by state legislation.)

> (2) Does the combination of controls satisfy the planning objective of the municipality?
> (3) Are the development goals and objectives part of a comprehensive land use plan that all can see and subscribe to? This entails the development of a master plan to provide policies and procedures for its implementation based on land use goals and objectives.
> (4) Most important, are land use control proposals or techniques administratively feasible? If land use controls place unreasonable or difficult demands upon land owners or private developers, or require excessive official review by the administrative agency responsible for overseeing such controls, they are obviously not feasible.[4]

OPEN SPACE REGULATIONS

The preservation of open space is important in maintaining a community's quality of life. In order to safeguard open areas, primarily recreational spaces, planning for open space is becoming increasingly more important. Policies designed to preserve open space will inevitably restrain urban growth and therefore can be a valuable tool for fending off unwanted development. Regulation of open space by local governments, however, borders on the constitutional limitations of the police power and may result in a taking of property, making it necessary for public acquisition of land, or of certain rights which affect the use of the land.

METHODS OF ACQUIRING PUBLIC OWNERSHIP OF LAND

The most direct method of acquiring public ownership is fee title acquisition. This is the outright public purchase of full title to the land

and all the rights associated with that land. It is the method most commonly used by local governments for preservation of open space. It is also very expensive, so the usefulness of outright purchase of fee title is often limited by local revenues. Methods of acquiring land in this fashion will either come about by voluntary actions or through the power of eminent domain.

Another method of acquiring public ownership in land is for government to acquire less than fee title. This is not a widely used technique at present for controlling growth, but it could become increasingly more important as communities understand its potential. This approach involves acquiring a scenic easement to the land and gives the local government a nonpossessory title to the land. The purpose of these easements is to preserve vital open space from intensive, uncontrolled development. The advantage of this approach is that the land, regulated by the use of an easement, remains with the land owner, as does the responsibility for maintenance of the property. The easement may also serve as an inexpensive interim measure to prevent development on land that local and state governments may eventually want to use for parks or recreation. The availability of the power of eminent domain, which has been held constitutional for purposes of obtaining scenic easements, must be included in the enabling legislation in order to insure a reasonable price for the easement.

Another technique of acquiring control of public land without actual ownership may involve lease agreements or public rental of land for either short or long term preservation of open space.

Dedications are another technique for acquiring public land, and occur when a private landowner transfers land to the government without compensation. Dedications are commonly instituted under sub-division

regulations. The most common example of dedication involves the transfer of streets constructed as part of a private subdivision from the developers to the city. Provisions for dedication must issue from state statutes. Requiring dedication of open space to be used to meet the demands of open space and recreation in new subdivisions is a valid exercise of local governments' regulatory power.

Briefly enumerated, other methods of acquiring land may entail public land transfers from surplus state or federally owned lands, land acquired through public donation, tax foreclosures, or purchase and lease back agreements by local governments.

LAND BANKING

A useful method of managing urban growth being proposed with increasing frequency in the field of land use law and planning is public land banking, whereby a government entity acquires land available for future development for the purpose of preserving open space and controlling the pace and direction of urban growth. By acquiring or leasing land in the path of urban expansion, a government can prevent premature development. The land bank can thus observe market forces and then develop or dispose of land at a proper time for development in conformity with a publicly adopted plan for the area. Operated properly, land banking would minimize urban sprawl, promote more efficient patterns of development, and reduce rising land costs by curbing speculation. The addition of this technique to the land use control system could create a more effective total system. Some of the drawbacks of this system are the exhorbitant expense to local government in acquiring land and also the legal problems associated with local governments' buying and selling

land in the private market. This technique has been utilized extensively in European countries, but to date has not been widely practiced in the United States.

ZONING CONTROLS TO SHAPE URBAN DEVELOPMENT

Zoning

Zoning has proved useful in preventing some of the abuses of growth, but has done little to direct or guide growth in an orderly fashion. Rules restricting development in zones were established at the time the ordinance was adopted. Little consideration in the past was given to what kind of development might later be needed or proposed.

The zoning code should remain flexible enough to adapt to the goals of the community's general growth plan and changing economic, social, and land use criteria. Zoning to be effective and a valid exercise of governmental regulation should be based on a comprehensive plan. Courts are more likely to uphold zoning regulations when each control is based on a thoroughly thought out comprehensive plan for the community.

Traditionally, zoning has been concerned with the location and use of land, leaving the timing of development to the owner. Recent development management techniques have combined zoning with capital improvement programming, for example, to add a timing dimension to the zoning ordinance.

Other trends that are being incorporated into zoning schemes include the addition of performance standards into the ordinance. Performance standards employ sets of measurements relating to acceptable levels of nuisance or side effects of the proposed development activity, rather than simply specifying acceptable uses. This approach has also been adopted in meeting

applicable levels of sewage and traffic services, including environmental concerns by specifying maximum levels of stress to be imposed on natural resources by development. Another similarly related trend is toward more consideration of particular proposals on a case by case basis. Instead of having specific districts in which permitted uses are listed and all others are barred, some ordinances classify a great number of uses as special uses, or classify a use as right only when certain conditions have been met as determined by a board of adjustment. One of the problems of all land use regulations is that there has been relatively little research in turn on the effects of land use controls in operation. It is not known whether decreasing the density of development will lead to greater geographic development and the problems associated with urban sprawl. It appears that they might. The tradeoff that exists between lessening the density of development and the cost associated with sprawl and wasted land resources is of vital concern to those attempting to overcome the problems of past development practices. The discussion of the techniques to follow will show how, under certain conditions and circumstances, techniques to lessen density and preserve open space can play a vital role in planning for some types of new growth, as well as protecting what we have.

Down Zoning

Down zoning refers to a zoning action that reduces the intensity of use of a parcel of land. Typically, the trend in zoning is for land uses to become more intensive, i.e., changing from agriculture to residential or to commercial. However, recently some local governments have begun to reverse this trend in an attempt to reduce or limit future growth. The case of Montgomery County will show how this county undertook a scheme to reduce

permitted densities in portions of their central business districts, as part of their redevelopment process in conjunction with planning for rapid rail transit. In other localities, down zoning was accomplished by altering the land intensity permitted in the zoning code. Sarasota, Florida, reduced the number of apartment units per acre from 35 to 25. Palo Alto, California, down zoned 5,000 acres in the foothills to ten acre open space zones. Newport Beach, California, limited multi-family residential development to not more than fifteen units per acre, a substantial reduction; while Windsor, Connecticut, eliminated the town's only apartment zone.[5]

Down zoning must be based on a valid exercise of the police power because undoubtedly courts will carefully weigh the loss in property values affected by these zoning decisions with the nature and degree of the public welfare at hand. It will simply not be enough to decrease permitted densities for the sake of slowing down growth, unless increased development pressures at high densities can be shown to have a measurable adverse effect which, unless altered, would bring even more adverse pressures than currently exist.

Large Lot Zoning

Large lot zoning requires land to be divided into large parcels with only one single-family dwelling allowed on each lot. Such zoning substantially raises the price of a lot, and hence the price of development, while reducing the density in the area. Although this technique is quite commonly employed, it is coming under increasing attack as an exclusionary zoning technique. For example, lots of 40,000 square feet, in highly affluent areas, have been characterized as "white flights" with no intent other than to exclude minorities, and should be considered overtly discriminatory.[6] Large

lot zoning, when designed with a specific intent other than to exclude minorities and the poor, can be a valuable growth control. It should be noted, however, that any attempts to initiate large lot zoning techniques will be bordering on some exclusionary grounds, regardless of how valid a purpose the regulation may be designed to protect. Such laws do not allow all people who wish to settle in a particular place to do so. (See Exclusion, Chapter 4).

Before the exclusionary issue came to the forefront, land control ordinances were usually upheld on the rationale that such zoning would lessen congestion, secure safety from fires, or provide adequate light and air. These health and safety objectives, although valid, seem often to have been mere legal fictions even when accepted by the court, for such problems in fact rarely posed serious threats to those communities. Later, large lot zoning ordinances were founded on such purposes as preserving the topography and the rural or historic character of the community, or forestalling sudden installation of costly services which the community could not provide. In some instances, large lot zoning has been enacted to avoid the costs of building schools and installing public services. Zoning for these purposes has been upheld by the courts of some states and rejected by those of other states, usually on the grounds that local governments may not zone to exclude future growth. In a classic court test, National Land and Investment Co. v. Kohn, the court invalidated four acre zoning on the grounds that it was too great a restriction on marketability because of the high cost of land and, additionally, because there had not been sufficient evidence of the inadequacy of existing sewage disposal facilities and roads. In March 1975 a New Jersey Supreme Court found the municipality of Mount Laurel to be engaging in discriminatory land use practices by making it difficult for low and moderate income housing to be produced.[7] The ruling of the court was that one acre

zoning was sufficient to overcome these problems without resorting to four acre zoning, which it considered to be exclusionary. The court said, "Zoning is a means by which government may plan for the future, it may not be used as a means to deny the future."[8]

> In any case, courts must decide in reviewing the legality of large lot zoning whether the exclusionary threat overrides and negates the possible benefits that may be gained from setting large minimum lot sizes. In doing so, the courts will normally consider the value of the ordinance to the entire community, the extent of the city or county covered by the restriction, the demand for new housing in the area, the supply of housing that exists at all income levels, the consideration given by the plan by professional planners and the public, and generally all the components of the "reasonableness" doctrine.[9]

Large lot zoning of a permanent nature would seem to be most defensible when its non-existence can be shown to pose real threats to the health and safety of the community. Such an argument could, for example, present a highly technical carrying capacity argument supporting low densities as the only means of keeping abreast of current facility capacities or natural supporting resources, such as water. The only problem with this approach is that holding capacities, both natural and man made, are subject to changes by technological improvements.

The zoning of some areas into large lots may also be used as a timing technique or as a means of placing some land in a holding zone until it is more suitable for increased densities of development activity. The creation of a holding zone is more likely to be upheld by courts if the zone is distant from densely urbanized areas or if the zone is similar to the surrounding development. Zoning for large lots in rural areas has in some instances been upheld to preserve the rural character of that area. Montgomery County, Maryland, for example, rural zoned one third of the upper portion of the

county into five acre minimum lot sizes in an attempt to preserve the rural nature of the area and to fend off development activity. Such types of zoning, to be valid, must serve the interests of the entire community and not just a few who reside in the restricted area.

Palo Alto, California, briefly described in the preceding chapter in conjunction with their cost revenue applicaiton of the feasibility of new development, adopted in 1972 an open space zone created on almost 5,000 acres where minimum developable lots were 10 acres. This ordinance was upheld by the court as a reasonable exercise of the police power after property owners alleged that a taking of property had occurred. The importance of this and other open space preserving regulatory techniques is evidenced by California cities' being required, as of 1972, to adopt open space elements in the general plan.[10] Techniques therefore for preserving and influencing open space preservation are of vital concern to planners.

Other variations of large lot zones may be classified as agricultural zones, open space zones, conservation zones, or zoning related to environment controls. The following discussion will briefly enumerate their purpose in the growth control program particularly as it relates to the preservation of open space.

Agricultural Zoning

Agricultural zoning involves adopting large minimum parcel sizes of land requiring them to be used exclusively for agricultural purposes. Large minimum parcel size requirements are an important element of an agricultural zoning ordinance because farming operations can be undertaken efficiently and profitably only on large acreages. In agricultural zones farming and animal husbandry are established as the primary uses, in order to facilitate

the long term use of lands best suited for agricultural production by preventing a mixture of urban and rural uses which have placed unbalanced taxloads on agricultural properties.

The need for protection and preservation of agricultural land is evidenced by the conversion of approximately 730,000 acres added to urban use each year. Nearly half of this new urban land came out of the agricultural land inventory.[11] Agricultural zoning regulations are an effort to prevent development pressures from encroaching on this rapidly disappearing resource.

The validity of agricultural zoning has been upheld where such an ordinance can be proven to benefit the public welfare, particularly as it relates to protecting decreasing agricultural land in and around highly developing growth areas. Thus, by setting the minimum parcel size at a large number of acres, the local government will be helping to assume the continuation of a healthy, profitable agricultural economy. Also, as mentioned in the previous discussion on large lot zoning, large minimum parcel sizes will slow down the rate of development in selected areas and avoid costly extensions of public services and roads as well. "Local governments should be careful to adopt reasonable minimum parcel sizes based on careful studies of climate, soil characteristics, crops currently suitable for production, and sources of water."[12]

Agricultural zoning ordinances should specify those uses which will be permitted within an agricultural zone as a matter of right, including such activities as grazing, dairying, tree farming, and other agriculturally compatible activities. Agricultural zoning, like large lot zoning, does not have to be of a permanent arrangement. Sometimes an agricultural zone can be used as a holding zone to channel development to a more desirable area.

Recently, a number of states have adopted new tax laws in the form

of preferential assessment, or types of deferred taxation, in an effort to prevent the rapid conversion of agricultural land to urban uses. Much of this conversion has been brought about because agricultural land cannot compete with escalating property taxes brought about by increased land values at the urban fringe. The theory behind this approach is that land shall be taxed on its use, not on its speculative market value.

Development District Zoning

Development district zoning is another approach that might be used to plan more efficiently for growth. By this approach, land is divided into development zones based on readiness for development. The primary aim of development district zoning is to prevent scattered development and urban sprawl, while not discouraging development in general. The city of San Jose, California, for example, proposed to divide land into three types of areas, urbanized, urban expansion, and urban reserve. Earlier in this paper the example of Hawaii was presented where state lands were divided into similar categories, in an attempt to discourage overdevelopment of some areas which were not yet ripe for such development pressures.

Zoning-Related Environmental Controls

Another method for controlling the intensity of development is the use of environmental controls applied to zoning. This approach is similar to that of the conservation zone. Environmental controls might include provisions for flood plains, coastal plains, wet lands, stream banks, shoreland, or erosion prone areas. While these controls may not be included in local zoning or subdivision ordinances, they can serve as additional restrictions on activities carried out under the zoning ordinance.

This type of zoning is usually looked on favorably by the courts

because it is so clearly in the interest of the public's health and safety.

> The most significant task in preparing [an ordinance to protect natural resources] will be deciding upon the standards by which applications for development will be approved or denied. Two major avenues of approach are available: (1) precise, prestated standards, or (2) performance standards, requiring evaluation on a case by case basis. Which course is chosen depends on the amount of environmental information already available to the governmental agency, the adequacy of the agency staff, in terms of training and size to make project by project reviews, and similar characteristics that vary from one local situation to another.[13]

Conservation zones or hazard zones can be said to promote the following objectives: (1) they reduce the amount of damage to other land. This is especially true of flood-plain zoning, since floating debris often causes direct damage to adjacent land and property. (2) They also reduce indirect costs to government in maintaining public service facilities. (3) They also save relief payments to victims of natural disasters such as floods when zoning controls might prevent development in dangerous areas. One of the most difficult problems in this type of approach will be defining the boundaries of the hazardous area, as often they may be subject to changes and shifts over time.

Referring to the Harristown, Illinois zoning ordinance, the purpose of the conservation zone is to

> . . . prevent the construction upon or alteration of rural or natural environments which have natural conditions of soil, slope, susceptibility to flooding or erosion, geological conditions, vegetation or an interaction between the aforesaid, which makes such lands unsuitable for urban development. Further, this zone is established to protect areas of the environment that, if altered, would cause health or pollution problems and environmental degradation. The conservation zone will also insure adequate areas for future conservation and recreation pursuits. Certain agricultural uses would also be permitted.[14]

Interim Zoning

Interim zoning controls are another technique that can play a major role in the growth control program, although their function is perhaps unique to the range of land use controls discussed in this chapter. Interim controls are techniques for safeguarding a community's land use plan by restricting and sometimes even prohibiting development for a short period of time. The most common example of an interim control is the adoption of restrictions on development while a community is developing a general plan or comprehensive zoning ordinance. The interim zoning ordinance can thus be used as a stop gap measure to insure that types of development activity that may be contrary to the spirit and intent of the new development plan do not occur while the new plan is being developed.

> Any comprehensive approach to interim development controls should take into account three factors. The first is the timing of the introduction of the controls, permitting interim controls to be placed on land use either at the very commencement of the planning process, or when the planning process has led to formal proposals advertised for public hearing.
>
> Second, the new approach should consider methods of utilizing interim controls at the commencement of the planning process by adoption of more explicit standards than are presently required either by statute or judicial determination. If the legal and planning professions turn their attention to this problem, greater safeguards from arbitrariness can be erected and new methods of flexible zoning taken into consideration, then the continuity of the planning process can be considered as a meaningful substitute for Euclidean zoning of the present day.
>
> Finally, the third factor of interim development controls, to regulate whole new aspects of the planning process, including new zoning matters to control the resources of the environment which involve and affect the social, economic, and physical well being of the community.[15]

For example, with regard to the latter consideration, land uses may be regulated not only by the power to zone but also by general police power regulations over the control of building permits. Interim development controls have been utilized to prohibit construction within drainage and watershed areas until comprehensive plans are formulated for area wide development.

Interim controls by their very nature should be limited in scope and duration. As a general rule, total moratoriums on development are unjustified. Interim controls should only be allowed to prohibit development which will probably be prohibited once the planning process is completed. Other types of development should be allowed to continue. Limitations should also be placed on the length of time that interim zoning ordinances may remain in effect. Most enabling acts impose time limitations, and in their absence, the courts have been willing to limit the effect of interim controls to a reasonable period of time.

SEWER MORATORIUMS

Sewer moratoriums have emerged as an important technique for controlling growth in recent years. They are being used in heavily populated areas of the country by local, state, and federal governments to restrain new development in the face of inadequate sewer facilities and resulting environmental degradation. Moratoriums can take any of the following forms: a freeze on new sewer authorization, a freeze on building permits, or a freeze on rezoning to any higher use classification.

The legal justification for sewer moratoriums imposed by state and local governments is based on the police power. It is important to note, however, that although sewer inadequacies are the most popular bases for

moratoriums, they have not been the only ones. Marin County, California, placed a freeze on all new building permits for much of the county because of inadequacy of the water system. In San Jose, California, a voter-passed initiative in 1972 levied similar restraints on residential construction in areas where classrooms were in short supply. As other facility shortages increase across the country, the future may witness the increasing of moratoriums where the public welfare, health, and safety can be shown to be in jeopardy by facility shortages caused by new development activity.

Moratoriums on development activity should be regarded only as a last resort to be used in the planning process. Sewer moratoriums can and do result in hardships to the building and housing industry and are often responsible for inflated land and housing costs. The moratorium is often evidence that inefficient planning has taken place in the past. Currently, hundreds of localities across the nation are involved in some form of moratorium. Each community has the responsibility to provide needed services and facilities so that community growth can proceed, yet there is no definite need that they proceed in a manner that will be harmful to the environment. The short term environmental moratorium is an effective means of assuring this.

BONUS OR INCENTIVE TECHNIQUES

This category includes an array of practices by which the community obtains certain features or amenities in a development by granting additional income generating benefits to the developer. For example, additional open space or community facilities above the required minimum, may be obtained by an allowable increase in density. These techniques can be most effective as growth control techniques when specifically utilized for this purpose, to

provide amenities which perhaps could not be obtained in light of existing development regulations. For example, cluster provisions, found in some zoning ordinances and in planned unit development ordinances, provide for increased densities in exchange for equivalent amounts of open space to be used by all.

In recent years, one of the most useful devices to bring about more innovative land development practices has been the planned unit development. Planned unit development combines some of the attributes of zoning and subdivision regulations into one development ordinance. It substitutes required specific plans involving administrative discretion, for the normal process specified in the lot line approach found in standard zoning and subdivision regulations. The technique can be used as an incentive for better development by enabling complete schemes to be worked out and approved in a deliberative process. Through its incentive provisions pertaining to open space, planned unit development has made vast improvements to integrate overall design characteristics to the site, thus abandoning traditional lot by lot development which has been responsible for urban sprawl. Not all land is suitable for development on a scale of uniformity.

Some areas may dictate the altering of densities to accommodate natural amenities for preservation of open space. In the past this practice was not possible. Localities should be encouraged to adopt provisions in their zoning and subdivision regulations for Planned Unit Development ordinances. This device seems to work best for large scale development.

Incentive techniques are also becoming increasingly effective as a means of insuring that a community provides an adequate supply of low and moderate income housing, thus establishing a better balanced community.

Some innovative ordinances, as will be exemplified by the case of Montgomery County, offer the developer an increase in density if he will provide fifteen percent of his units for low and moderate income housing for developments of fifty or more units. Incentive systems in business districts have also been used to obtain such things as pedestrian walkways, fountains, and mixtures of commercial and residential uses in office complexes in exchange for allowing developers to build with increased densities.

Such amenities can do a great deal to provide for a more suitable living environment. The effectiveness of the technique can be measured by the attractiveness of the density reduction in comparison to the reduction in profits that can be expected to occur as a result of building lower profit margin units, or supplying the required amenities. Substantial research will be required before the adoption of such a development scheme to make sure that the density provisions offset the cost for public amenities to be incurred, or there will be no incentive for a developer to participate. Incentive provisions can provide a valuable addition to the growth control program in helping to promote an added degree of flexibility and quality of development that may not have been attainable in the past.

SUB-DIVISION REGULATIONS

Sub-division regulations are the rules which govern the process by which a developer acquires a piece of land and divides it into improved or unimproved lots, which are then sold. These regulations are designed to serve a wide range of purposes. They are a means of assuring safe design and proper construction of new streets, utilities, and drainage systems. They also require the dedication of easements to the public, by the developer, to

provide for such facilities. Subdivision regulations also provide a means of enforcing zoning by establishing minimum lot sizes, set back requirements, rights of way, and off street parking requirements. All these tasks and goals are basically accomplished by establishing certain conditions and standards a developer must comply with before the proposed sub-division is approved in the administrative review process.

Another major objective of the regulations is allocating costs of certain improvements most equitably between the residents of the immediate area and the tax payers, because tax payers feel new development should pay for the benefits they receive. When sub-division regulations require a developer to dedicate land to the public, or to install utilities, they are based on the contention that such guarantees are necessary for adequate provision for the public welfare, and that the improvements are of such a nature as to benefit the members of the sub-division. Some form of assessment should be levied on those receiving the special benefits of the new public facilities. This is one of the most important functions the regulations are designed to perform. If a facility is part of a capital improvement program and is initially under utilized in the expectation of future growth, only the share of the total cost, needed to meet the demands created by the new development, should be allocated to it. This planning can enable local governments to assure residents that, at least when growth occurs, it will be in an orderly fashion, accompanied by adequate new open space and school facilities.

In addition to adopting dedication requirements and adequate public facility measures, which require the availability of municipal services in advance of development activity, communities are also delaying or denying

developments on the basis of environmental criteria where new development can be shown to cause serious off site flooding or environmental degradation. New regulations, proposed by the Environmental Protection Agency, note the importance of the location of development to air pollution. In Chapter 2, states were shown to have the power to prohibit new sub-divisions in areas when further building might cause deterioration of ambient air quality.

The sum of these and other requirements, mentioned up to this point of the discussion, has exemplified how the regulation of sub-divisions can substantially reduce governmental costs associated with new development, reduce environmental problems, and enhance the preservation of open space. Thus, the sub-division regulations are an important mechanism in controlling growth. To be most effective, as with the case of other implementation regulations, their administration must be closely coordinated with certain other local governmental policies, ordinances, and activities. Among the most important of these in relation to sub-division regulations, are the comprehensive plan, the official map, the zoning ordinance, municipal policies for the extension of utilities and the allocation of costs thereof, and health and safety regulations.

ANNEXATION-URBAN LIMIT LINES

Annexation is the process by which usually contiguous fringe territory is added to an existing municipality. Under the typical annexation statute, the initiative for annexation must come either from the city seeking annexation or from the area desiring to be annexed. Problems often arise in determining the conditions under which annexation should take place. Statutes commonly provide that services must be extended to an annexed area as a

condition of annexation. One of the problems with this approach is determining the criteria to be used in judging when an adjacent area is ready for urban government. The problem becomes one of deciding when rural and unplotted land should be annexed, which will inevitably lead to increased levels of development pressure. For this reason the process of annexation may either aid as a deterrent or incentive to local growth.

> The control over the annexation process in California allows both the Local Agency Formation Commission (LAFCO) and local municipalities to deter unwise development and consequently limit or control growth.[16]

This agency must approve an annexation proposal before a city can begin actual proceedings. It has broad powers to deny or amend annexation requests after holding a hearing on its merits. This agency may use its powers in two ways to control growth. They may annex county land which they fear will be developed and then restrict development, or they may refuse to annex land intended to be developed. It appears that in California annexation statutes are such that the city has broad powers to refuse annexation which enables the city to deter development pressures. However, a city that refuses to extend its boundaries, in the wave of growing population demands, may be shifting increased burdens on the existing population by artificially lowering the potential housing supply, which needs to keep abreast of population increases and market demands.

Perhaps the most logical outgrowth of annexation policies, as they relate to urban growth control, is exemplified by the use of the urban service boundary, which a number of localities have adopted to curtail sprawling development. This boundary line distinguishes an urban area amenable to development, from an area where development will be discouraged. "This

designation is similar to the so-called 'blue line' which is a physical limit to annexations and extension of public utilities and services."[16]

Salem, Oregon, adopted such a policy in their efforts to develop a growth policy in 1971. The purpose of the policy was to contain urban-type development in planned urban areas where the basic services, such as sewers, water facilities, and police and fire protection could be efficiently provided. The city then tailored the master sewer plan to be adopted to the geographical limits of Salem's future urban development. Urban development would be controlled within this boundary through the provision of public facilities and land use restrictions, and the area around the urban limit line would be retained as a greenbelt. "Similar boundaries have been proposed in Sacramento County, California, and adopted in Boulder, Colorado, and Lexington-Fayette County, Kentucky."[17]

The above examples show how a traditional implementation technique, annexation, can be combined with the addition of other policy plans to determine more effectively how growth will occur.

UTILITY REGULATION VS. TIMING AND STAGING POLICIES

Since construction of roads and such major utilities as sanitary sewer and water systems has a substantial effect on the timing and degree of urban development, some planners recommend that public utility policies be used purposely to shape urban development rather than simply to serve it. This suggestion is a natural extension of the timing and staging of facilities as a means of directing a more orderly course of future growth.

There are two issues underlying the controlling of the provision of services: which local bodies or agencies can decide utility policies? and to

what extent may the provision or withholding of utilities be used by various agencies to restrain urban growth?

"A local government generally derives its power to own and operate water and sewer utilities from state statute."[18] This authority is typically worded in broad language. This language was intended to vest extensive discretionary power with local governments over the ownership and operation of utilities. On the other hand, privately owned public utilities have little discretion to refuse to extend urban services and generally must provide to all customers within its service area; privately owned utilities thus lack the power to purposefully implement growth control policies. Local governments similarly do not have much power over special districts, which act as independent regulators and provide their own sources of funds.

> It is difficult to determine the amount of discretion that special districts and other publicly owned utilities possess to refuse to extend services to areas not already provided with the services.
>
> California court cases suggest that, assuming specific enabling statutes do not compel continued utility expansion, a municipality or special district has fairly broad powers to control the extension of utilities.
>
> In Richard v. Tustin, the court upheld the city of Tustin's refusal, both to extend a sewer main to a restaurant and to de-annex the land. This allows the land owner to get sewage services from another municipality.
>
> In Wilson v. Hidden Valley Municipal Water District, the court upheld the Water District's refusal to supply water to anyone within the district's boundary.[19]

It found that, although the district was formed solely to prevent adjacent districts from supplying water for residential growth in an area which the residents wished to preserve for agricultural uses, its actions in preventing urbanization and development were perfectly valid.

Besides these justifications for refusing to extend services, the situation could arise where the refusal is justified by a community's general plan. The general plan may limit extensions to certain areas at certain times. Such a case was exemplified in Ramapo in their timed development scheme mentioned earlier. Courts can be said to give weight to interrelated policies tied to a community's general plan.

The above discussion has exemplified, at least in California, the discretion to refuse to extend utility services. Nevertheless, important legal problems respecting a restrictive utility policy should not be minimized.

> At least a few cases, exemplified by Reid Development Corporation v. Parsippeny-Troy Hills Tp., suggest that publicly owned utilities have the same obligation as privately owned utilities.
>
> In that case the court ordered an extension of a water main six hundred feet; no sound distinction can be made, in respect to the extension of the service, between a municipality which has undertaken to provide water to the community and a water corporation performing the function of a public utility.[20]

The court found that only water-related matters could justify a refusal to extend the water main.

In general, where a city, through its municipal utilities creates an area of established water and sewer services, it has the same legal obligation as a public utility. That obligation is not to unjustly discriminate between persons who request utility services. The broad rule is that a city cannot generally be compelled to supply water to an area outside its corporate limits where it has not previously supplied water to such an area. Likewise, a city generally cannot be compelled to supply water to anyone outside its corporate limits, even if it is already doing so in a green

area where it has made limited and special contracts with particular parties to provide such services, unless the basis for refusal unreasonably involves an abuse of discretion.

In conclusion, it should be noted that the limited power of local governments, in regard to special districts and privately owned utilities does not mean that they cannot cooperate with a municipality. For example,

> . . . in the San Francisco Bay area the policies regarding "urban service areas" implemented by Santa Clara County (Local Agency Formation Commission) illustrates the kind of cooperation that can take place.[21]

An urban service area is land which will be programmed with future services. These service areas are developed through extensive studies, with participation by representatives of special districts and analysis of feasible capital improvements for the area. Agreed upon by all decision makers, the Santa Clara County plan provides that no utilities will be extended beyond the service area, as long as there is room for development within the urban service area. This approach thus takes on a staging element by channeling growth into service areas. This policy is aimed at discouraging leapfrog development since there will be no services available beyond the urban service boundary line. The point is that cooperative and coordinated policy agreements, even of a voluntary nature, can promote utility policies consistent with the plans and desires of the local community.

CONCLUSION

The purpose of this chapter has been to suggest a number of techniques and alternatives that might be utilized by local governments to control the regulation of land use. The techniques enumerated in this chapter are not necessarily new, nor do they require any additional legislation

in most states. They illustrate various combinations of approaches that can be harmonized into a growth management program or policy instrument to help achieve growth management objectives. The discussion was not designed to represent the full range of choices, but rather to reflect the variations in approaches that exist.

Perhaps the unique contribution made by eleven case studies surveyed was the integration of the various techniques suggesting that altering or adjusting various elements of the growth management control system is the most effective approach. For example, the integration of capital improvement programming in Ramapo was combined with the requirement of pre-existing facilities. Another approach might be to use large lot zoning as a holding zone technique in one portion of the locality while increasing the density through down zoning other locations. Land use controls utilized in this comprehensive fashion, with an approach of adjusting and continually monitoring as new circumstances arise, is the key to successful growth management.

FOOTNOTES

[1]Einsweiler, pp. 291-292.

[2]Ibid., p. 286.

[3]John Hysom, "Land Use Controls," Urban Land, March 1974, p. 5.

[4]Ibid.

[5]Carter, p. 343.

[6]Mary Cranston, Bryant Garth, Robert Plattner, and Jay Varon, A Handbook for Controlling Growth (Stanford University, Stanford California: Stanford Environmental Law Society, 1973), p. 14.

[7]Southern Burlington County NAACP v. Township of Mount Laurel, 67 N. J. 151, 336 A. 2d 713 (1975).

[8]National Land and Investment Co. v. Kohn, 215 A. 2d 597 (PA. 1965).

[9]Cranston, p. 14.

[10]Frank Broadhead and Roselyn Rosenfeld, Open Space Zoning Handbook (prepared for the Assembly Select Committee on Open Space Lands, Sacramento, California, April 1973).

[11]Dallas D. Miner, "Agricultural Lands Preservation," Management and Control of Growth, Vol. 3, p. 53.

[12]Cranston, p. 45.

[13]Broadhead and Rosenfeld, p. 88.

[14]Carter, p. 345. See also Village of Harriston, Illinois, Zoning Ordinance, Section 3.1.

[15]Robert H. Freilich, "Interim Development Controls for Flexible Planning/Zoning," Management and Control of Growth, Vol. 2, pp.401-402.

[16]Cranston, p. 56.

[17]Carter, p. 348.

[18]Barbara A. Ramsy, "Utility Extensions: Timing and Location Control," Management and Control of Growth, Vol. 2, p. 442.

[19]Cranston, p. 62. See also 225 Cal. App. 2d 97, 37 Cal. Rpts. 124 (1964).

[20]Cranston, p. 62. See also 258 Cal. App. 2d 271, 63 Cal. Rpts. 889 (1967).

[21]Cranston, p. 60.

CHAPTER 4

LEGAL ASPECTS OF GROWTH REGULATIONS

Currently there are a great number of uncertainties that exist in determining what government can and cannot do in regulating the management of growth, within the restrictions that the courts have placed on the regulation of land use to safeguard individual liberties.

The recent Petaluma case in California, which attempted to place a limitation of 500 new building permits allotted per year, was originally struck down by the courts as necessarily restricting the right of travel.[1] (In August, 1975, this decision was reversed.)[2] In recent years Boulder, Colorado, came close to passing a referendum restricting their population to 100,000, and Boca Raton, Florida has attempted to place a ceiling of 40,000 units on their growth.[3] These instances are appearing with increasing frequency throughout the literature. Whether they can be construed as legally valid or not is the theme of the following discussion.

This short chapter will be divided into two general themes. The first will deal with what has become known as the taking issue. The second theme will be concerned with the concept of reasonableness and how it applies to ascertaining the legality of land use controls.

THE TAKING ISSUE

The taking issue lies at the heart of the new mood in its attempts to revolutionize the concept of land ownership. The proper relation between public authority and private rights in land is a recurring theme in Anglo-American history, a theme that has greatly influenced our legal tradition.

Upon this tradition in our own country's history lies the Fifth Amendment of the U.S. Constitution, which poses the most significant restraint on the regulation of land use, by stating that private property will not be taken for public use without just compensation.

Private property rights have been regulated since the enactment of public nuisance laws at the turn of the century and of the powers of zoning in many localities for the past forty years. This, however, does not constitute a taking in the traditional sense even though many land use cases can point to the fact that a property devaluation occurred as a result of the said regulation. The legality of these regulations is said to derive from the police power, which gives localities the vested right to protect the public safety and welfare. When the public welfare deems it necessary for the property to be publicly regulated to the extent that an owner's property is no longer useful to him, payment for such taking is deemed necessary.

> The distinction between the exercise of the police power and condemnation has been said to be a matter of degree of damage to the property owner. In a valid exercise of the police power reasonably restricting the use of property, the damage suffered by the owner is said to be incidental. However, where the restriction is so great that the landowner ought not to bear such burden for the public good, the restriction has been held to be a constructive taking even though the actual use or forbidden use has not been transformed to the government so as to be a taking in that sense.[4]

The case law revolving around what actually constitutes a lawful taking is still somewhat unclear. In the past, courts have insisted the taking clause be strictly observed. Whenever the government has needed land for some public purpose, it has either purchased the land in open market or exercised the power of condemnation. However, when communities are attempting to regulate large tracts of land for open space preservation, green

belts, and buffer zones, the costs via purchases would soon outstrip the available funds. Boulder, Colorado has been successful in its endeavors to purchase thousands of acres worth millions of dollars in its green belt program; however, not all localities possess such resources. Therefore, the taking issue is at the heart of how far public decisions can go in regulating the use of the land.

The first half of this century found the case law supporting the taking clause strictly. In 1922, in the now famous case of Pennsylvania Coal Company v. Mahon, Chief Justice Holmes announced his famous rule.[5] The general rule is that property may be regulated to a certain extent, but if the regulation goes too far it will be recognized as a taking.[6] Thus, Holmes declared Pennsylvania's Kohler Act, passed to prevent coal mines from operating under towns, an unconstitutional regulation of the property of the coal company. This rigid interpretation laid down by Holmes set the precedent for many rulings which have upheld private property rights at the expense of the public. It is interesting to note the dissenting opinion of this case offered by Justice Brandeis, arguing that the scope of the police power was, in fact, sufficient to regulate Pennsylvania Coal.

> Every restriction upon the use of property imposed in the exercise of the police power deprives the owner of some right theretofore enjoyed, and is, in that sense, an abridgement by the state of rights in property without making compensation. But restrictions imposed to protect the public health, safety or morals from dangers threatened is not a taking. . . . The property so restricted remains in the possession of its owner. The state does not appropriate it or make any use of it. The state merely prevents the owner from making a use which interferes with paramount rights of the public.[7]

Fred Bosselman hesitantly pointed out that he found the average breaking point between valid regulation and taking is at a loss of two

thirds of the admitted value for some other use. This supports the contention that courts are presently willing to go very far in letting regulation decrease property values. Regardless of the effect that the new mood has on the case law, courts will still have to evaluate regulations according to their own standards of reasonableness.

> Four tests have been used to determine if restrictions resulting from a floodplains regulation constitute a taking. They will serve to illustrate the broad degree of discretion that the court may consider in evaluating the validity of a regulation. They are: (a) a balancing test - if the advantages to the community are outweighed by disadvantages to the owner; (b) confiscation restrictions leave no reasonable use of property; (c) public use test - a benefit is conferred on the public as opposed to prevention of a harm; and (d) correlative benefit test - if the owner does not participate in a benefit conferred by the regulations.[9]

In The Use of the Land, William Reilly concludes a chapter on the taking issue with the following recommendation.

> It is time that the U.S. Supreme Court re-examine its earlier precedents that seem to require a balancing of public benefit against land value loss in every case and declare that when the protection of natural, cultural, or aesthetic resources or the assurance of orderly development are involved, a mere loss in land value will never be justification for invalidating the regulation of land use. Such a re-examination is particularly appropriate considering the consensus that is forming on the need for a national land use policy. Although fifty years have passed since the Pennsylvania Coal case, it is not too late to recognize that Justice Brandeis was right.[10]

Many courts have treated the idea of regulatory taking more as a hypothetical possibility rather than a real one. The Supreme Court of California, for example, appears unlikely to hold any regulation invalid under the taking clause. The United States Supreme Court in its latest ruling left some doubt as to whether any regulation could constitute a taking as

long as the court was convinced the public purpose served by the regulation was important. This serves to show the changing emphasis reflected by the new mood in America in the purpose and intent of land use regulations. However, interpretation is still largely undecided between the true balance of the public vs. private property rights. Many planners might be more inclined to show an interest in growth related policy measures if they themselves understood the issues more fully.

REASONABLENESS

It is a basic rule of all legislation that it must be reasonable, when taking all factors into consideration, such as local situations, new conditions, public requirements, the general welfare, and the interests of the property owner. The benefits of zoning ordinances are best obtained by strict adherence to the rule of reasonableness as it applies to each situation in question. Unreasonableness as interpreted by most court decisions, means that unreasonableness has reached to such a degree as to constitute unconstitutionality. The burden of proving that the challenged zoning ordinance is arbitrary and unreasonable is an important question when considering the question of constitutionality.

In determining whether a regulation is reasonable, matters which may be considered include all existing circumstances or contemporaneous conditions, such as necessity or lack of necessity for adoption of the regulation, the objective of the regulation, the location size, and physical characteristics of the neighborhood, density of population of the city, aesthetics of the situation, nature of the land in the vicinity, the use which it is put to, zoning classification of nearby property, and the effect on the value of other

property. It is the job of the legislative body to determine the relevance of zoning ordinances to situations such as the above. They are given the power to establish zones, to classify property, and to determine land use functions and policy. These functions will not be interfered with by the courts unless they see such power being exercised in an arbitrary or unreasonable manner as to be in violation of constitutional guarantees.

> The test of "reasonableness" is difficult to define with any great precision. It is a flexible which tends to change over time and vary from one locale to another. Generally, however, the courts consider four aspects of "reasonableness" in determining the validity of a growth control or land use regulation.
>
> 1. The regulation must promote an objective which is a proper governmental concern, and there must be a demonstrable relationship between the regulation and the objective.
> 2. The objective must not be one that the entire community should pay for through eminent domain proceedings.
> 3. Landowners who are similarly situated must receive equal treatment.
> 4. The regulation must not reduce the value of property too severely.[11]

Considering the validity of land use regulations, the courts examine whether the goals and objectives being sought by local government through the use of the regulation are ends toward which governmental powers may be legitimately used. Because it is so often difficult for a court to determine what the real purpose of an ordinance is, it will usually confine its view to whether the regulation is a legitimate directive of the police power.

While it is perhaps an exaggeration to say that all landowners similarly situated must be treated equally, the courts generally require a regulation to be based on some policy which can rationally justify any differences in treatment. Regulations that are applied arbitrarily or capriciously have been ruled unconstitutional, and courts are most suspicious when legislative bodies treat small parcels of land differently from surrounding property.

The Stanford Environmental Law Society notes that,

> Sometimes, however, the court will require a greater showing of reasonableness if certain factors exist. Thus, were a regulation to infringe on what the courts consider to be "fundamental rights" or to involve a classification which the courts view as "suspect," the courts would scrutinize such a regulation very strictly, requiring that the law be both necessary and in the furtherance of a "compelling governmental interest."[12]

In the area of growth control and regulations, controls that are racially restrictive, such as large minimum square footages, or regulations that violate a person's "fundamental right to travel" are said to be "exclusionary" and will be struck down by the courts. There are, thus, fundamental questions to be addressed by local legislators when considering regulations to attempt to halt growth, which is really not deemed feasible, given our present concept on what forces govern the use of land.

It is important to note at this point of the discussion that the U.S. Supreme Court has been typically reluctant to become involved in questions concerning local land use. One such view of the court says,

> It is not a part of the legislative function to grant permits, make special exceptions, or decide particular cases. Such activities are not legislative but administrative, quasi-judicial, or judicial in character. To place them in the hands of legislative bodies. . . is to open the door completely to arbitrary government.[13]

THE EXCLUSION ISSUE

While the exclusion issue is critical and is almost always raised in challenges to growth control ordinances, the concept merits brief mention as it is an important determination in deciding whether a regulation is a reasonable exercise of governmental power.

> Generally, all growth control ordinances, in effect if not by definition, are exclusionary in that they do not allow all people who wish to settle in a particular place to do so. While this broad sense of exclusion is of great concern to some courts, most courts refer to a regulation as "exclusionary" only when the purpose or effect is to exclude particular classes of individuals from the community, such as racial minorities, the poor, or families with school age children.
>
> Some growth control regulations attempt to exclude particular types of residential uses such as mobile homes, multi-family dwellings, or apartments with more than one bedroom. Courts generally do not look on such regulations as reasonable. They see such ordinances as disguised means for keeping out certain classes of people--usually the poor and urban Black, and, in the case of bedroom ordinances, families with school age children.[14]

Growth control ordinances may be also considered exclusionary when they prevent the population at large from entering and settling in the restricted community by restricting the "fundamental right to travel." Although this issue has never been fully resolved, most courts seem to regard the "right to travel" in a personal liberty context, and this appears to underlie many of their decisions invalidating growth control regulations. The case of National Land and Investment Co. v. Kohn, cited earlier, in which the courts rejected attempts of the township to postpone growth through a zoning scheme, involving four-acre minimum lot sizes, noted that zoning was a means to plan for the future not to deny it.

CONCLUSION

The standard of reasonableness is the general criterion by which land use controls are judged in courts. There is some uncertainty as to what constitutes a lawful taking of private property by a government. The case law relating to the question of taking is shifting more in the direction of

governments' right to regulate property. For example, California courts may consider the average breaking point between valid regulation and taking as at a loss of two thirds of the admitted value of some other use. Of course, each case will depend upon its own unique circumstances. As William Reilly has said, the U.S. Supreme Court should re-examine its earlier precedents that seem to require a balancing of public benefit against land value loss in every case. The contention from the standpoint of growth control policies is that when the protection of natural, cultural, or aesthetic resources is involved, the society will ultimately have to bear the consequences of development longer than the property owner. Hence, the society should allocate property rights in accord with what it deems to be beneficial to the whole society in the long run.

FOOTNOTES

[1]Petaluma v. T. J. Hooper, #375 Fed. Supplement (Northern District of California 1974).

[2]74-2100 Aug. 13, 1975. U.S. Court of Appeals. 9th Circuit, California.

[3]Boca Raton, Florida. See Land Use Planning Reports, Report No. 17, p. 7 (Oct. 22, 1973).

[4]Fred Bosselman, David Callies and John Banta, The Taking Issue, prepared for the Council on Environmental Quality, U.S. Gov. Printing Office, Washington, D.C.) 1973, p. 20.

[5]Pennsylvania Coal v. Mahon, 260 U.S. 393, 415 - 16(1922).

[6]Reilly, p. 166.

[7]Ibid.

[8]Bosselman, p. 20.

[9]Freilich, p. 378. A similar point is made in "Ecological and Legal Aspects of Flood Plain Zoning," Kansas Law Review 20 (1972), 268, 277.

[10]Reilly, p. 175.

[11]Cranston, pp. 17-18.

[12]Ibid., p. 21.

[13]Ibid., p. 14.

[14]Ibid., pp. 14-15.

PART IV

A CASE STUDY OF MONTGOMERY COUNTY, MARYLAND

INTRODUCTION

This portion of the study focuses on growth management at the county level. The study attempts to discern how growth management theory and practices can be combined into a policy to manage future growth and land use. The efforts of Montgomery County, Maryland to formulate such a policy are used as a case in study.

> While counties have traditionally been thought of as only providing basic services such as election administration and tax collection, the increasing population and the needs of that population have expanded the county role to include many services and powers which affect and are directly affected by growth management. A 1970 survey of counties of more than 100,000 suggests the importance of county growth management's role: 76% are responsible for comprehensive planning, 78% for roads and highways, 55% for zoning, 51% for sub-division control, 42% for code enforcement, 33% for sewerage facilities, 38% for schools, 37% for solid waste disposal, 31% for fire protection. Where county governments do not handle these functions, they are often the responsibility of a quasi-public agency or special district.[1]

The case study describes a process of developing a growth policy in the design stages at the county level. Development management systems, Ensweller notes, can be divided into three categories: those in moratorium stage, in design stage, and in operation.[2] The management system described in Montgomery County currently overlaps two of the classifications. Since 1972, the Maryland Department of Health imposed a sewer moratorium throughout most areas of the county, which still exists today. The Planning Board for the Maryland National Capital Park and Planning Commission came out with its

first annual report on county growth policy early in 1975, attempting to delineate a recommended approach for future growth policy formulation. That approach, as the study attempts to illustrate, is still undergoing a process of refinement and development in attempting to orchestrate, influence, and control the many interrelated aspects of growth management.

The case study examines the following:

1. Challenges for the development of growth policies to overcome.

2. A description of a framework and organization approach to the development of growth policy.

3. Specific techniques or system elements that can be used to achieve goals of the management system to control growth.

4. Some general discussion of the extent that growth policies need a refinement in the general or master planning process. The general plan will continue to remain a touchstone for growth policy formulation, but the literature suggests a shift in recent years to more specific short range programs and policies to implement the plan. The level of specificity, that these policies and programs should entail, is a further subject of examination.

The views and philosophy of the Planning Board, as the formulators of the county growth policy report, lie central to the development of the remainder of this study. The thesis documents their approach toward innovating more effective growth management policies.

One of the most valuable contributions made to development of this thesis is Robert Ensweller's study entitled A Comparative Description of Municipal Growth Guidance Systems. A portion of that study was included in Chapter 3 of Part III, delimiting a range of techniques used across a spectrum of eleven case areas.[3]

A brief chronology of events leading up to the development of the

First Annual Report on Growth Policy is given to provide an overview of events taking place in the county.

ACTIONS TAKEN TO INSTITUTE THE SYSTEM

State legislation established the Ten Year Water and Sewerage Plan in 1966, requiring communities to prepare a comprehensive planning policy for providing sewers.

Montgomery County initiated its capital improvement program in 1970. This program is the most useful element in directing the staging of development.

In May, 1970, the Maryland Department of Health imposed a sewer moratorium on the Anacostia and Cabin John Watersheds in Montgomery County. In 1972, the Washington Suburban Sanitary Commission extended the law to all areas in the county. In 1971-73, the county developed the Germantown Plan based on a staging concept to control new development according to new town principles and the regional plan. In 1973, the planning board adopted an Adequate Public Facilities Ordinance, which compels a builder to approve the existence of adequate facilities--police, fire, roads, and water and sewer systems--prior to the initiation of new development.

In February 1973, the county council banned all further permits for connections to existing sewer lines, pending the establishment of a priority system for utilization of existing capacity. No building permits are granted without prior possession of sewer connection permits. The system would give priority to low and moderate income housing.

Montgomery County is suing the Washington Suburban Sanitary Commission to force it to extend sewer treatment facilities and to allow package plants

as an interim measure to expand treatment facilities.

In 1973, the Council of Governments began discussions with member governments to explore coordinated growth control at metro level, Capital Improvement Program and Fair Share Housing Program.

In 1973, a rural zone was adopted on 40% of the county's land on five area lots. Court tests of the ordinance are expected to follow. A preferential tax assessment exists for land in the rural zone, as well as on farmland.

With the 1974 work program, the planning board was directed to prepare a comprehensive report on growth policy. The planning board, consistent with these recommendations established a citizens advisory committee to assist in defining issues of growth and depicting courses of action the growth policy should address.

In October, 1974, the Planning Board's first annual report on Growth Policy, Framework for Action, was published. A public hearing was held on the report January 18, and at the time of this research effort the county council was deliberating in work sessions with the Planning Board on the content of the document. Political reaction was less than favorable to the report with philosophical differences seeming to exist between the Planning Board and county council on what actually should be entailed in the nature of a growth policy.

FOOTNOTES

[1]Bernard F. Hillenbrand, "Growth - A Series of Four Articles," Management and Control of Growth, Vol. 1, p. 148.

[2]Einsweiler, p. 289.

[3]Ibid., pp. 283-300.

CHAPTER 1

THE DEVELOPMENT OF MONTGOMERY COUNTY'S GROWTH POLICY

IMPLICATIONS OF THE GENERAL AND REGIONAL PLAN

Planning activities in the Washington metropolitan region have been based on the Year 2000 Plan for the National Capital region. A dominant theme of this plan is the channeling of the concentrations of residential areas into six corridors to be served by rapid rail transit. The major regional policies stated in the Year 2000 Plan, as they were enumerated in Montgomery County's general plan are as follows:

> Metropolitan growth should be based upon six corridors of urban development, four of the corridors being in the Maryland suburbs.
>
> Downtown Washington should be encouraged to continue as the dominant employment center within the National Capital Region.
>
> Each major corridor should be served by rapid transit and freeways making downtown accessible from all parts of the metropolis.
>
> The regional network of freeways should be designed especially to handle those trips for which there will be no convenient rapid transit service.
>
> Each new corridor community should have employment opportunities, complete community services, and a variety of housing types ranging from large estates to high density apartments.
>
> Already urbanized areas should be encouraged to develop to their fullest capacity.
>
> The areas outside the corridors should be kept open so as to guide urban growth in the corridor pattern and conserve rural resources.[1]

The radial corridor pattern takes on a star shape with rural open spaces alternating between corridors. Major rapid transit stations will supply a focus for the core in each of the corridor cities. The earliest scheduled opening of a transit station in the urban ring will be 1976, with

stations in the corridor 220 scheduled for 1981. 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 provide ample space between the cities.

Montgomery County lies situated North of Washington, D.C., in the Washington Metropolitan area. About half of the 495 square miles in the county is relatively undeveloped land. Pressures emanating from the Washington Metropolitan area were responsible for increasing this county's population from 340,928 in 1960 to 522,809 in 1970. This resulted in a net change of 53%.[2] Through the decade 1970-1980 the population of metropolitan area is expected to grow an additional 1,300,000, while Montgomery County is expected to increase its population by 17,000 additional residents a year, resulting in Montgomery County's absorbing approximately 13 percent of this new growth. In 1973, Montgomery County housed 579,200 people. By 1983, it is expected to grow to 747,000. The rate of growth, 2.5 percent a year, is much slower than the 4.4 percent rate for the 1960's, and 7.5 percent during the 1950's, and can be expected to stabilize or decline even more.[3]

In 1970 there was a major re-evaluation of the original Year 2000 development policies in view of development that had occurred during the 1960's. The adoption of the "developing area" concept focused on the clarification of the timing dimension inherent in the area wide regional development policies. The original plan spoke of radial corridors and new communities within them without delineating the sequence of staging for developing these corridors. As a start towards developing rational staging, the Council of Governments, vested with regional planning authority, adopted the concept of development areas, as a means of distinguishing among different types

and rates of development within the urban corridors. The development areas, which can be readily identified on the map in Figure 3, include the following:

The Urban Core is the focal point in the region of the most intense employment. The urban core contains 5 percent of the total population and over 40% of the area's employment opportunities.

The Mature Development Area surrounds the urban core and is also a focalpoint for regional employment activity. It contains nearly 42% of the metropolitan population and nearly 30% of the area's employment.

The Developing Area represents the initial stages of the recommended urban corridor development. It is the location of many new communities recommended for the region, some of which are being built upon vacant land, while others are being achieved through redevelopment and expansion of existing communities. This area contains 40% of the metropolitan area's population. It also has received over two-thirds of the region's population growth during the 1960's. This area encompasses the greatest proportion of Montgomery County.

The Potential Developing Area will be the focal point for development pressures in the decades to come. It constitutes the main bodies of the future urban corridors of development and houses the new towns and new communities which are central to the new communities concept. The vast majority of this new land area is vacant and includes nearly one fourth of the vacant land area in the metropolitan area. It also has less than 10% of the metropolitan population and only 2% of its employment. Thus, this area represents a vacant land reserve for future growth in the decades to come.

The Special Purpose Area represents primarily large military installations.

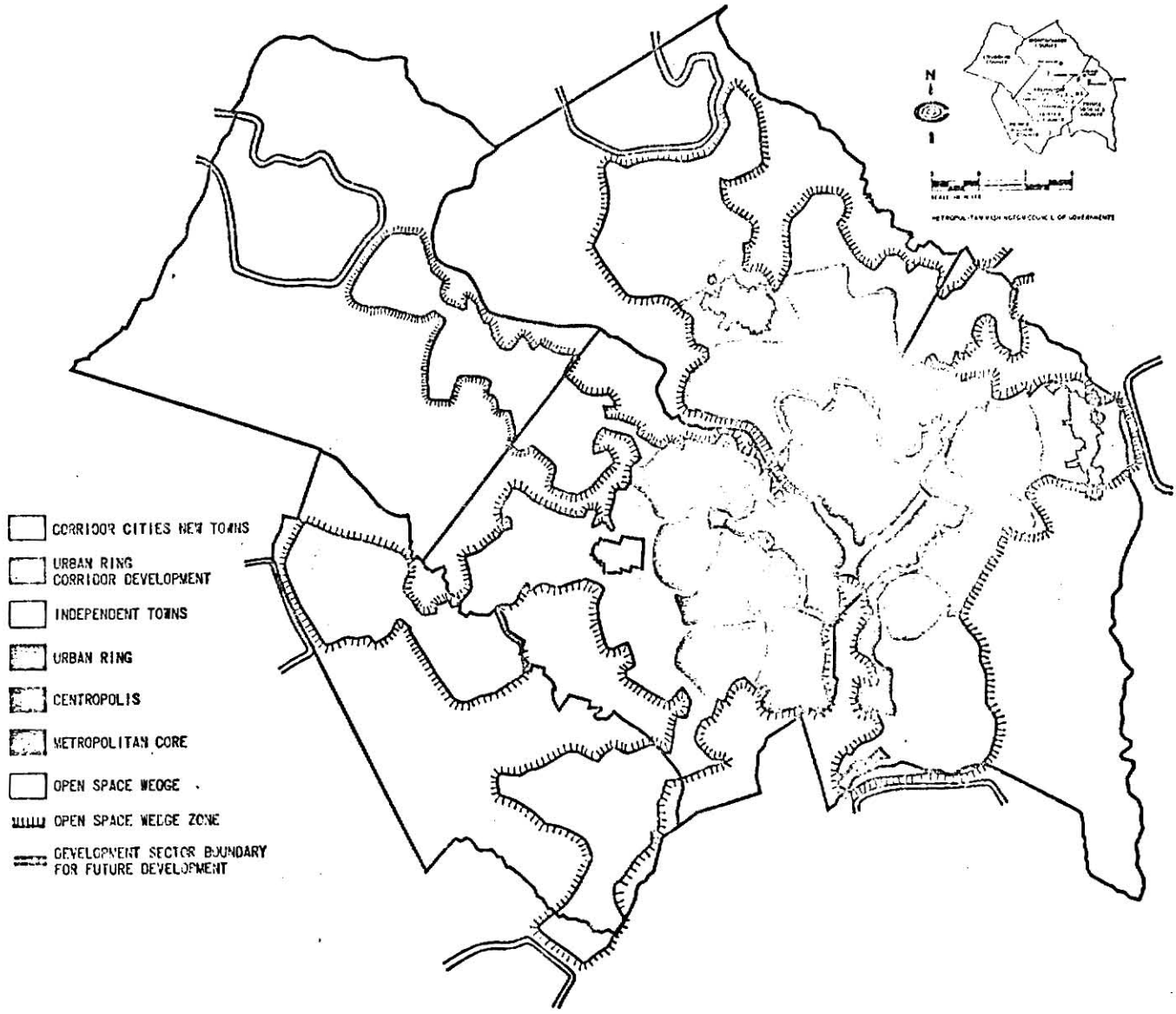


Figure 2

Regional Development Guide

*Metropolitan Council of Governments, Water and Sewerage Plan and Program, (Washington, D.C., Metropolitan Council of Governments 1971-72) Figure 11-2.

The Low Density Area includes the "wedges" designed to separate the corridors of development. It is a very large area containing over 1,200 square miles, with population density approximately 100 persons per square mile.

THE GENERAL PLAN

Under the county's General Plan there are basically three major areas into which new growth and development can be channelled, the suburban ring, the corridor, and the peripheral or wedge areas.[4]

The premature development of the wedge areas would be contrary to the spirit of the plan, which is attempting to preserve open spaces between corridors of development. Thus, within the policy limitations of the General Plan, the two remaining areas for new development are the cities of the I-270 corridor and the nodal areas in the suburban ring. Ceiling capacities through master plans and zoning have been established for the corridor cities, whereas they have yet to be determined for the majority of the suburban nodal areas. Some of the major problems, related to the timing and location of growth involve the question of the ability to provide transit, roads, and other public facilities to these areas.

Developing the nodal areas to their capacity before filling the capacity of the I-270 corridor would create an increase in density, particularly in the form of high-rise development. This, in turn, has the effect of increasing traffic congestion and crowding existing neighborhoods. On the other hand, it is reasonable to assume that the advent of mass transit service would necessarily depend upon some increased levels of density in the nodal areas to support ridership.

The growth policy report Framework for Action noted that the alternatives of the location of future land use have posed some interesting choices, which have been necessarily oversimplified to present the issues in such a manner that some form of public conveyance can be developed, at least around the conceptual issues developed. The question is by no means cut or dried as development will proceed in both the nodal and corridor areas. The emphasis of the growth policy will necessarily be to determine how much emphasis and influence development policies should concentrate on, effecting either alternative and within what time frame.

From the standpoint of the development of a growth control program, it is apparent that the issues must be identified into realistic alternatives that can be readily grasped and understood by public decision makers and citizens alike. Central to the development of various locational alternatives and to corresponding amounts of development to be encouraged is the question of the timing and the costs of alternative courses of action.

The problem in the I-270 corridor is the relationship between the projected population and employment and the public facilities necessary to accommodate future growth. The public facilities are primarily I-270 itself and the Potomac Interceptor Sewer, both which have limited capacities, were not designed to serve Montgomery County only. Current estimates are that it might take an additional six years to overcome these problems.

If growth is to be channelled primarily into the corridor and a relatively tight lid kept on the down county area, then it would be necessary to provide adequate transportation linkages to the corridor and also to provide adequate public facilities in the form of schools, parks, etc.[5]

The Montgomery County Planning Board feels alternative locations

should be encouraged particularly in the down county nodal areas, given the constraints in the corridor and their desire to make mass transit work in the nodal areas, by concentrating development activity around them. Adequate public facilities also exist in the nodal areas.

DEFICIENCIES RESULTING FROM PAST EFFORTS TO FORMULATE GROWTH POLICIES

According to the 1964 update of the Wedges and Corridor Plan there have been both successes and failures of the concept of the general plan based on wedges and corridors. A beginning was made in the development of several of the new-town corridor cities called for in the general plan, but far more development has been scattered. Relatively little of the great areas planned as open-space wedges has been permanently preserved from urbanization, and the use of the wedges as a means of guiding development into the corridors has had little effect.

The proliferation of sprawl in the wedge area was partially a result of zoning provisions which were not consistent with the low density provisions called for in the plan. It was also difficult for the county to provide the various necessary community facilities at the appropriate time or place. The absence of any timing provisions or staging policies called for in the general plan also contributed to this problem. Much of this residential development in Montgomery County occurred without a firm public policy to provide guidance, coherence, and structure. The results of this have been sprawling single-family residences which have overburdened facilities, and crept into the wedge areas.

The 1964 plan noted that because of the lack of a firm public policy in the past, various parcels of land were by-passed and remained dormant.

These parcels are scattered throughout the urban ring. Most of the public facilities have been made available to these parcels, but the public is not optimizing utilization of these benefits. Thus, the County Planning Commission feels it is necessary to derive policies to achieve, as rapidly as possible, the proper utilization of the vacant land and a conversion of suburbia to an urban structure. The Interim Report of the Advisory Committee on County Growth Policy noted that

> . . . growth policies will have to consider how to guide the market so that underutilized areas can be redeveloped so that growth will not overwhelm other areas. This may involve the county in more than the traditional approach of providing capital facilities and zoning.[6]

The General Plan suffers some of the same problems that area master plans experience in their attempt to portray an end state. The problem is that the means of directing growth into corridors are not clearly delineated. The means of achieving its objectives are only suggested while the means to implement the plan are even less clear. Zoning, it is acknowledged, is only a partial fulfillment of the plan's objective. No specific staging policies are included although staging is recommended. The plan, in spite of its deficiencies, has provided the general guide which the open spaces programs and transportation programs have proceeded. It remains the cornerstone for the statement of official policy regarding growth and development. From its base the county has moved towards a more comprehensively based program in which various functional elements and separate regulatory actions have been developed to strengthen the process and implementation of the management system.

The area master plans are designed to provide more specific guidance to public policy decisions than the General Plan and are more specific with

regard to proposed public facility locations and zoning classifications. The problem is that under Maryland law, plans are only guides to zoning; the execution of land use recommendations in these plans has, by and large, been left to the actions of individual land owners seeking zoning map amendment changes and sub-division approvals, with their own time frame. In the same regard, implementation of the public facilities programs, recommended in Master Plans, was left to public agencies to pursue within their own capital budgets.

A land use policy made on a case by case basis without interrelationship of the timing, location, and costs associated with growth is an incremental and loosely coordinated approach to county development. Therefore, one of the major difficulties that the development of the growth policy has been designed to overcome is the lack of coordination in timing among the various area master plans.

The end state master plan tended to draw an idealized picture of an indefinite future, but usually fails to show how to reach it. Policy designed to manage growth and overcome this difficulty must at the same time be flexible enough to adjust to the continuous process of growth and change in metropolitan areas. In order to achieve this, policy must undergo a continuing process of monitoring and revision to adjust to unexpected events, changing conditions, and changing public values. The Planning Board further noted:

> Thus growth policy should not be an end state document. We conceive of it as an annual exercise in which existing policies would be evaluated against public objectives, new objectives formulated, and new policies or modifications proposed. This annual reassessment would appear in a report from the Planning Board, prepared for review and action by the County Council.[7]

The report would, in a sense, represent a comprehensive revision of county

policies on growth. This might entail an update of the General Plan and changes in area master plans. It might also contain policies for new zoning revisions needed to accommodate changing trends, including guidelines for the Ten Year Water and Sewerage Plan, and revisions to provide needed guidance for preparation of the next capital improvements program. It would thus constitute recommendations for work program priorities for a variety of different agencies which are concerned with the management of growth.

An inadequacy of the county's existing master plans in the past has been their frequent failure to relate the intensity of development permitted by their zoning recommendations more closely to the carrying or service capacity of planned public facilities.[8] This was one of the major motivating factors for the adoption of the Adequate Public Facilities Ordinance. Another action instituted to combat the problem of providing detailed need estimates of public facility requirements is the sector planning process in central business districts of the county. The sector plans are designed to give more detailed guidelines than master plans for constraints on and opportunities for growth so that it can be kept in balance with public facilities.

The Planning Board notes that until recently, the policy framework was strong on location, but weak on timing and cost. Timing of growth in the past was left entirely up to the private sector, while cost was also largely left up to the developer in terms of determining rental value, and relying on government to provide many of the facilities needed to support development.

> In summary, there was no good mechanism with which to link the rate and cost of public growth. Since the rate or timing of development, and the cost of development are inherent attributes of the urban growth process, it is clear that the model requires expansion to measure these elements if it is to live up to the expectations of the term "growth policy."[9]

The Planning Board then notes that in the past few years direction has been added to strengthen timing controls by the addition of the Adequate Public Facilities Ordinance, and a staging component to the comprehensive planning area such as the Germantown Plan.

Another existing limitation that the present policy model must still overcome is the definition and treatment of cost, particularly beyond the narrow realm of public facility finance, which only partially measures the real costs involved in maintaining a desirable quality of life. The Planning Board notes that until the quality of life can be related to growth management and incorporated into the policy model no true system of managing growth will evolve. In addition, the limitations posed by the regulation of private land use, through the law and the courts and the still unanswered questions about what constitutes a valid exercise of the police power are questions still remaining unanswered.

Another limitation that might be considered in the county's existing policy model is the lack of public programs, which, although maybe highly desirable to include in a work program, simply cannot merit the spending priorities prepared by local governments. Finally, another existing weakness of the policy model is in the area of coordination. There is a wide variety of new and old federal and state funding programs and requirements, which have not been brought together, particularly with regard to the timing aspects of decision making and with regard to the relative roles of the state and metropolitan agencies. Implementation of local growth policy is dependent on the successful integration of these external influences.

The examination of the elements, outlined in relation to the county's planning process, shows that the county does have a growth management process

and a policy model.

Montgomery County's policy model, as it presently stands, will require, according to the Planning Board, improvements in its ability to measure and influence the timing, location, and cost of growth. The policy must also have support from the courts and support from the other levels of government whose work it tries to coordinate.

CURRENTLY EXISTING AND PLANNED METHODS TO CONTROL GROWTH

The county growth policy provides for the concentration of future development in nodal activity centers in the urban ring. The Framework for Action report predicts that its growth policies could bring about this concentration in six years. A new CBD zoning scheme was adopted to guide development consistent with the growth policy. The recommendations of the CBD plan postponed for at least another decade the development of the rural wedge areas. However, besides growth in the nodal centers, development of public facilities was also to be permitted in the I-280 corridor, where the greatest demand appeared to exist. This area was already developed beyond the capacity of existing facilities and had a backlog of unfulfilled commitments for sewers which were not expected to be completed for another six years.

The locational choices, thus, pose the challenge for growth policy to manage growth consistent with planning objectives.

ZONING

Zoning was adopted for the down county area in 1928. Zoning in Montgomery County was expanded from time to time until the entire 500 square miles of the county was zoned.

Zoning was originally seen not as a means of controlling growth but as a means of controlling nuisances. Most recently in the development of the county's growth policies, two zoning tools in particular have emerged as a means of controlling growth and merit brief discussion at this point of the study.

1) The five acre minimum lot size rural zone limits development potential in the upper one-third of the county. Over 100,000 acres are now so zoned.

2) The CBD (Central Business District) zones promote intensive commercial, residential and office development in the areas of the suburban ring, where sufficient public facilities already exist and where rapid transit facilities will soon exist.

Rural Zone

The rural zone was adopted to strengthen the concept of the General Plan, one of wedges of open space between corridors of development. In the past, due to inconsistent zoning provisions, this concept was not fully implemented.

> The council also finds that, while the Capital Improvements Program, the Adequate Public Facilities Ordinance, and other measures are helpful in keeping urban development reasonably compact within the "corridors" of the General Plan and thus reducing the high cost of public facilities and services, this policy has been hampered by the absence of zoning provisions that would be consistent with low density of population in the wedge areas, most of which are now classified in zoning categories which permit densities several times higher in the wedge areas than posed by the General Plan of 1964, as updated in 1970.[10]

The County did not design this proposal to exclude development from the county. Its purpose is to guide development into that part of the county in which the services the county is obligated to supply can be most

efficiently and economically provided. The area to be rural zoned is approximately the area to be supplied with sewers over the next ten years, and now has a population capacity far greater than the anticipated population growth over the next ten years of the county. Thus, zoning as a tool can be utilized to guide future growth in accordance with plans and principles contained in the County's growth policy.

CBD Zones

In order to channel and coordinate development within the county's central business districts, the council adopted in 1973 a new zoning system and new zones for use within CBD's. These zones, CBD-1, CBD-2, CBD-3, are intended to encourage residential and commercial development at densities which can be supported by public facilities. They are designed to encourage provision of open space and other amenities, through bonus provisions similar to those discussed in Chapter 3.

> Although the CBD zones can be applied by local map amendment, it is expected that they will be applied primarily by comprehensive rezoning by sectional map amendment, i.e. at the initiative of the local council, not the property owner. Zoning would be at the appropriate density in conformity with the adopted master plan and/or sector plan.[11]

The zones have been designed exclusively for those central business districts in the nodal areas which are expected to be serviced by rapid rail transit.

Each new zone permits residential and commercial uses in the same structure; and each zone allows for a "standard and optional method" of development.

CBD-3 permits the greatest density and is generally designed for land immediately adjacent to transit stations where higher densities could be supported. Although residential uses are permitted, CBD-3 would normally

be developed for offices. Not all three zones will necessarily be appropriate for every CBD. Some CBD might best be served with only one, two, or all three of the following zones.

CBD-2 allows moderate density and would normally be used around the core area of the CBD. Its standards are designed to encourage residential and mixed apartment and office developments.

CBD-1 is designed for the lowest density because of its location on the periphery of the business district or because of its relationship to the total plan of development including the availability or adequacy of public facilities or compatability with adjacent land uses.

> Fragmentation of land holdings has been a major obstacle to attractive and coherent development of CBD's. In order to encourage land assembly which would permit more cohesive development and assume provision of open space, malls, pedestrian walks and other amenities, the new system permits property owners who meet a minimum acreage requirement (22,000 square feet) to elect an optional method of development. In effect, the optional method allows the developer somewhat higher density than he could get under the standard method - but only if he will agree to provide the open space and other facilities and amenities specified by the general plan, and will agree to build according to strict standards established by the planning board and enforced through site plan review and approval. Because the public will get the benefit of obtaining certain public facilities and amenities ordinarily not possible to obtain through development by the standard method, this permits creation of an environment capable of supporting greater intensities of use than those permitted under the standard method.[12]

These zones are the implementation tools of a policy to guide and direct growth and development. They allow zoning to be used more effectively as a means of carrying out growth policies, as zoning schemes are contingent on the sector and master plans. By using sectional map amendments covering large areas to be rezoned properties, the county has the power to determine

land uses more effectively and to stage development in accordance with these policies.

The Capital Improvement Program

As a result of the need for better coordination of timing and fiscal availability of public investments, a new public policy tool, the Capital Improvement Program, was adopted in 1968. The Capital Improvement Program can be the most useful single element in staging development and directing its future course. This program provides the necessary coordinative link between a number of development supporting services, and advance programming of necessary facilities to support growth proposed for developing areas.

Sub-Division Regulations

Another major tool of public policy has been the Sub-division Ordinance. It was originally adopted in 1934 to ensure that streets would be laid out and utilities provided properly. Since then, its role has been considerably expanded. As an instrument of growth policy the sub-division regulations have permitted the county to acquire parks, school sites, and public rights-of-way through dedication. It represented an attempt to coordinate the development of land with the provision of public facilities. This mechanism provides the badly needed link not only to control planned facility provision, but also a means of insuring that costs to support new development facilities will not outstrip the county's ability to provide needed services.

The Adequate Public Facilities Ordinance

The adoption of this regulation has provided greater power to the subdivision regulations and the formation of future growth policies. This

regulation requires the planning board, before it approves a subdivision, to find out whether the public facilities required to serve it are going to be available. The test of adequacy is tied not only to the evidence of facilities, but also to the County Capital Improvement Program, the Ten Year Water and Sewerage Plan and the State Department of Transportation Construction Program. In this respect, public facilities programmed for growth have been linked to the regulating of private land use to allow the county to begin to make conscious choices about where and when the growth should occur and to have the legal means to enforce it.

> The necessary public facilities and services include: public bus, rail or other forms of mass transportation, and/or roads (Federal, State, or County) adequate to carry the anticipated traffic generated by the proposed development; public sewer and water service, or private community systems meeting the standards of the State and County Departments of Health; and other agencies such as schools, police stations, firehouses, and health clinics. The applicant would also have to provide written assurance that there will be adequate public utility services (gas, electricity, etc.) to meet the needs of the proposed subdivision.[13]

If the necessary facilities are not existing through other proposed development schedules, they would have to be programmed for construction under adoption of a six-year Capital Improvement Program, or another agency development schedule. Water and sewer facilities would be considered adequate if the subdivision were located within an area in which water and sewer service was presently available, under construction, or designated by the county council for extension within the first two years of a current approved Ten Year Water and Sewerage Plan.

Montgomery County has thus developed and adopted a very useful, if not a necessary, tool in the development of planned growth strategies with the adoption of this policy. The ability of the county to achieve county

wide staging programs and policies can now proceed with the force that county development policy has been lacking in the past.

The Ten Year Water and Sewerage Plan

By state law enacted in 1966, Montgomery and Prince George Counties are required to prepare a Ten Year Water and Sewerage Plan and submit this plan to the governing body. This law requires each county to submit annually a comprehensive plan for the construction of basic water and sewer facilities. The plan must delineate portions of the county to be served by community systems in the succeeding ten year period. It must also set up a time schedule for the orderly expansion and extension of facilities.

> The ten year plan law requires that the county plan delineate service system areas in the county in three categories; however, the regulation implementing the law requires the delineation of areas into five categories, namely:
>
> 1. Areas currently served;
> 2. Areas for which facilities are under construction or are in the final planning stage;
> 3. Areas for which construction of facilities are to be given priority;
> 4. Areas for which community facilities are foreseeable in ten years;
> 5. Areas for which community facilities are not foreseeable in ten years.[14]

These parameters changed into time frames would correspond to the following authorization periods:

I. Service approved by the county council

II. Service proposed by the county council
   A. First two years
   B. Three to six years
   C. Seven to ten years

III. Service not approved or proposed by the county council (category three designation may be applied to any area regardless of the physical availability of service.) Figure 3 shows the application of sewer service categories to the Germantown Master Plan area.[15]

The result of this plan is that water and sewer systems should develop as part of the county wide capital imrpovement program for financing the staged and coordinated extension of all public facilities. Supporting facilities programmed in this manner, such as roads, schools, and fire services are more apt to conform to an orderly development plan, which will help ensure that leap-frog development and the problems associated with it do not occur. It is expected that this plan initiating the relative timing and location of future development patterns will continue as a significant tool for implementing the county growth program with overall county development policies.

> Extension of water and sewage systems should, over time, develop as a part of the county-wide capital program for financing the staged and coordinated extension of all public facilities.[16]

In this regard, the plan shall be used as a tool in implementing the planned development in the county by guiding elements related to the water supply and sewage systems. This tool coupled with the Capital Improvement Program provides one of the most influential of all the county's development policies to formulate a comprehensive development blue print in accord with goals and objectives of the growth policy.

An illustration of how the Ten Year Water and Sewerage Plan can guide growth is evident in staging elements of the Germantown Master Plan.

> Montgomery County first developed its staging concept in its plan for Germantown in 1971-1973. This plan and program seeks to achieve the objectives of new town development and the staged development of villages, using an integrated set of current control techniques such as planned development (17), stream valley protection (7), less than fee simple acquisition (4), adequate facilities ordinance (30), sewer permits (6), and more additional village scheduling would be tied to state funding for new roadways. The town center is related to a regional transit station. This is the only case study that identified growth control on a village scale using

new town principles in accord with a regional plan.17

The numbers indicated along with the controls listed above can be located in the comparative description of municipal guidance systems in Appendix A, including a definition of each element.

The two major public facilities utilized in that system to stage growth are the sewerage system and transportation system. For example, water and sewer service is restricted in some sections of the town center until sufficient population and market demand exist for proper development. Limited access sewers for certain periods of time are required throughout the first stages of development since existing lines have the capability to serve more development than the transportation system can handle.

The Development Sequence Plan Number 2 is a synthesis of underlying elements: the road network, water supply network, public school distribution, the village and neighborhood concept, population and economic growth forecasts, the land use recommendations, and the existing development pattern. Figure 4 is a graphic presentation of the master plan. The development phasing requirements of the plan are linked to the approval of record plots to develop the desired sequence and pace of guiding capital improvements. The adequate public facilities ordinance will direct subdivision activity into those areas provided with capital facilities.

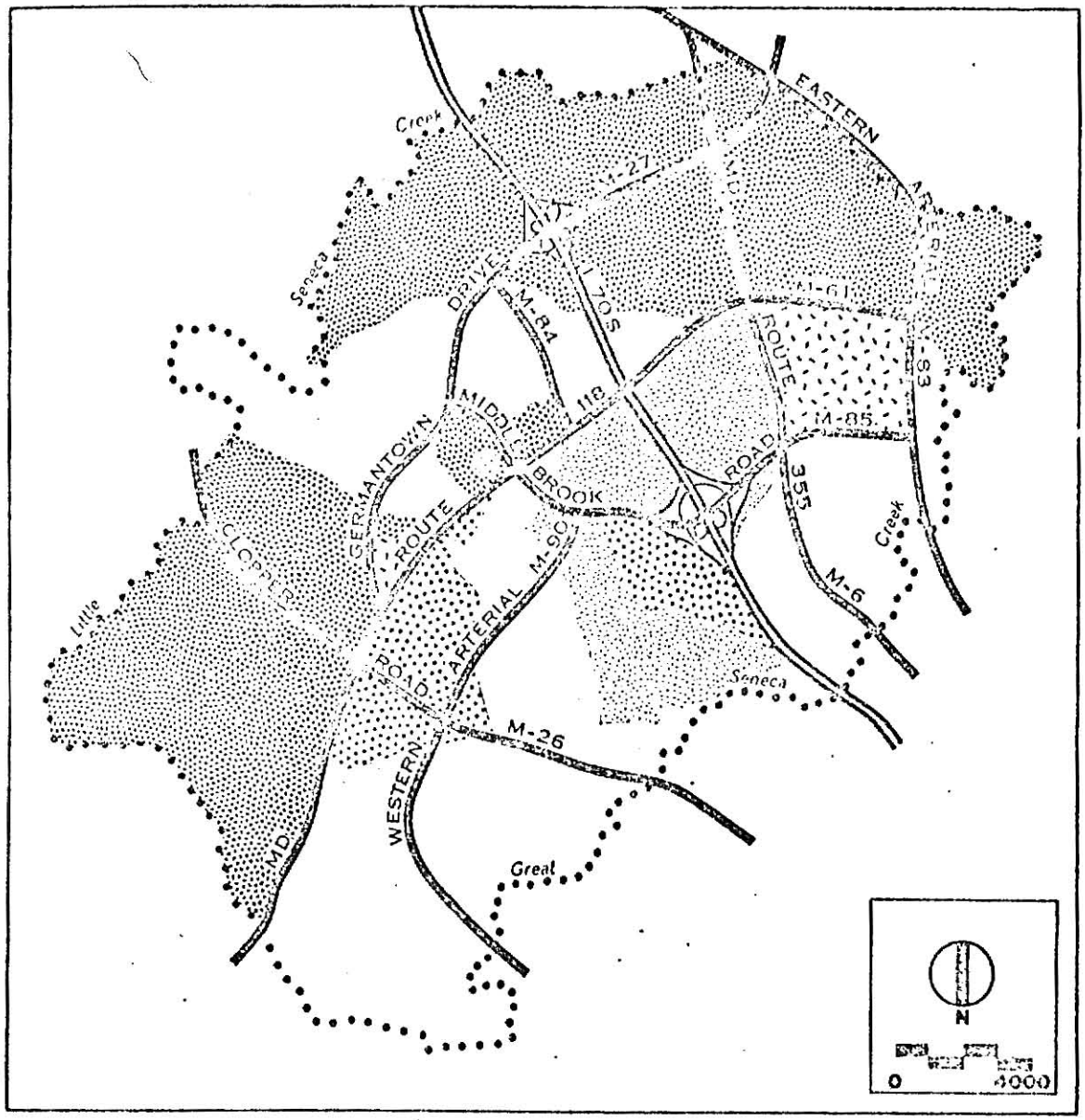
Figure 3 illustrates a proposed amendment to the Ten Year Sewerage Plan designating sewer service categories to be utilized in staging the future sequence of growth. Service is designated to various locations in Germantown from a one to ten year period.

Sewer Allocation Policy

Perhaps the single most important device of the county growth policy

Figure 3

A Proposed Amendment to the Ten Year
Sewerage Sewer Service Categories



A Proposed Amendent to the Ten-Year Sewerage Plan- Sewer Service Categories

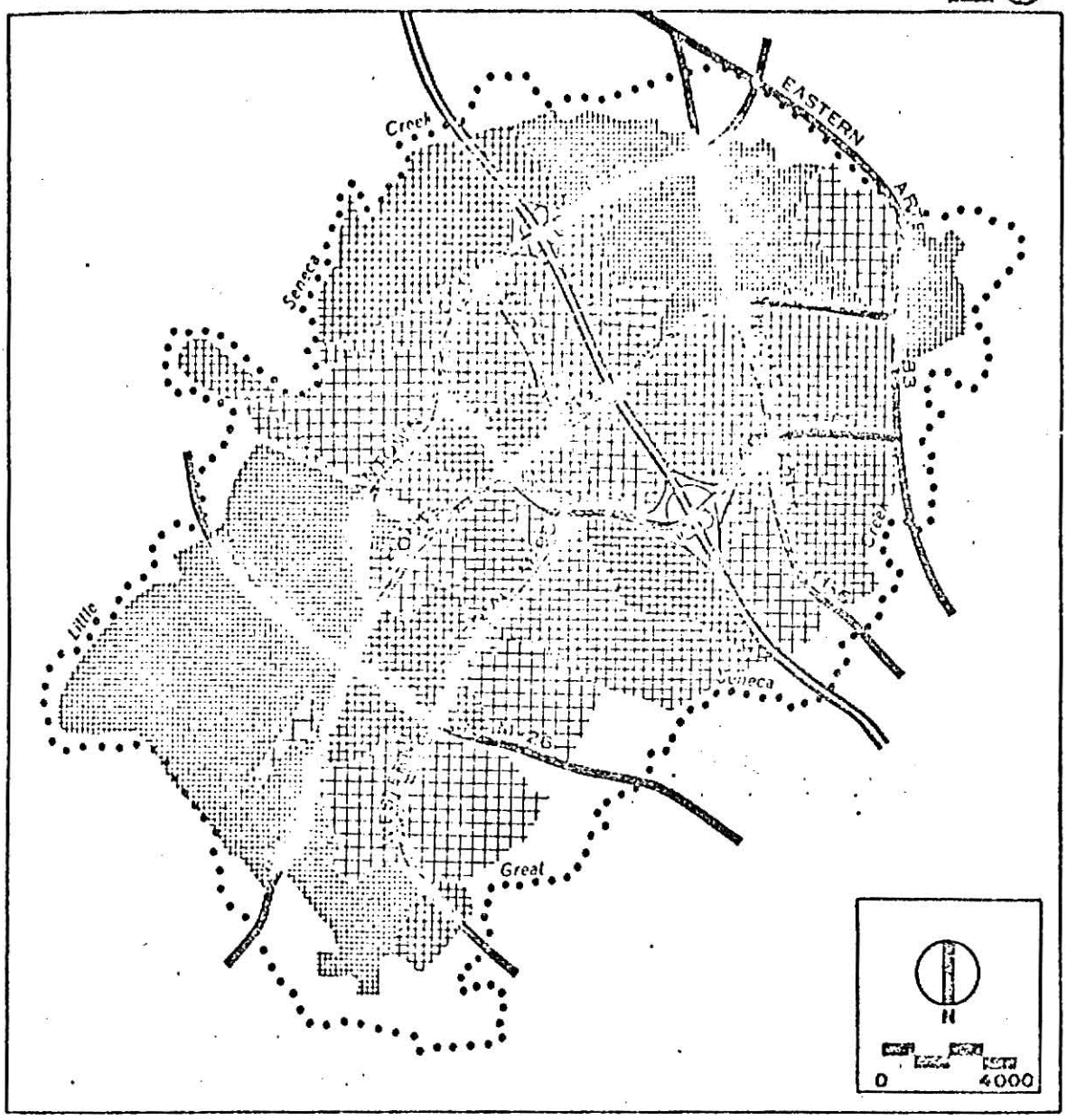
LEGEND

- Service Approved by Council
- First Two Years
- Three to Six Years
- Seven to Ten Years
- Service Not Approved by Council

*The Montgomery County Planning Board, The Germantown Master Plan (Maryland National Capital Park and Planning Commission, September 1973), p. 104.

Figure 4

A Development Sequence Plan



A Development Sequence Plan

LEGEND
Stage 1
Stage 2
Stage 3
Stage 4

*The Montgomery County Planning Board, The Germantown Master Plan (Maryland National Capital Park and Planning Commission, September 1973), p. 79.

to effect the location of development during the next five years will come from allocating proportions of the proposed interim sewer plant capacity to the nodal areas of the suburban ring, particularly Silver Spring (see "Nature in Chapter 7). The final recommendations of the county growth policy called for most of the interim capacity from the construction of the Rock Creek Interim Plant to be allocated to the high density centers developing around transit stations. The advance waste water treatment plant is not scheduled until 1980 making this interim capacity, when it does become available, a means to ensure the development of the nodal areas.

These sewer policies, combined with zoning provisions, subdivision, master planning, capital improvements program, and the Adequate Public Facilities Ordinance, provide a sufficient base from which an effective growth management process can develop. In effect, these policies constitute the major means by which to manage growth.

CONCLUSION

This chapter has introduced the concept of the county's General Plan in the regional setting for Washington, D.C. By doing so it has tried to convey the setting and some basic facts necessary to discern the foundations of the county's organizational framework to manage growth and policy formation, which will be the subject of the next chapter.

Crucial in understanding the setting, is the context of the "Wedges and Corridors Plan." Within this plan three simplified locational choices can be emphasized from the standpoint of growth policy. Development of the wedge areas, which the General Plan calls to preserve, or development of the nodal areas and I-270 corridor. The major question, or questions at stake

from the standpoint of the county's development policy is the county's ability to provide the necessary public facilities, and within an appropriate time frame at each location. These concepts, as they lie central to the development of the county's growth and development policy, will be the basis of further discussion in regard to the question of the timing and the location of future development.

FOOTNOTES

[1]Harland Bartholemew and Associates, A General Plan for Wedges and Corridors (prepared for the Maryland National Capital Park and Planning Commission, Montgomery County, Maryland, 1964), p. 21.

[2]Advisory Committee on County Growth Policy, The Interim Report on County Growth Policy for Montgomery County Maryland (Maryland National Capital Park and Planning Commission, February 1974).

[3]Ibid., p. 13.

[4]Montgomery County Planning Board, Framework for Action (Maryland National Capital Park and Planning Commission, October 1974), p. 59.

[5]Ibid., p. 23.

[6]The Interim Report on County Growth Policy for Montgomery County Maryland, p. 23.

[7]The Montgomery County Planning Board, "Managing Our Future, An Approach to Urban Growth Policy for Montgomery County" (The Maryland National Capital Park and Planning Commission, August 1973), p. 4.

[8]Ibid., p. 48.

[9]The Montgomery County Planning Board, Framework for Action, p. 35.

[10]A Text Amendment for the Montgomery County Zoning Ordinance prepared by The Montgomery County Planning Board and adopted by The Montgomery County Council, "Text Amendment No. 73012, entitled Rural Zone," adopted October 2, 1973, p. 1.

[11]The Montgomery County Planning Board, Everything You Always Wanted to Know About Planning, Zoning and Subdivision in Montgomery County Maryland, October 1973, p. 29.

[12]Ibid., p. 31.

[13]Ibid., p. 49.

[14]The Interim Report on County Growth Policy for Montgomery County Maryland, p. 59.

[15]Donald A. Downing, "Pricing and Investment Policy as a Growth Policy Tool: Application to Sewer Extensions in Montgomery County Maryland" (Maryland National Capital Park and Planning Commission, 1974), p. 6.

[16]The Montgomery County Planning Board, Germantown Master Plan (Maryland National Capital Park and Planning Commission, September 1973), p. 79.

[17]Einsweiler, "Comparative Descriptions," p. 287.

CHAPTER 2

FRAMEWORK FOR ACTION

This chapter will unfold recommendations and directions for future growth policies that are contained in the Framework for Action report, which is the Planning Board's schematic model to approach the management of growth. The report sets the stage for a major public discussion of alternative policy actions, while identifying the relative strategic importance of current growth pressures on the county. The report attempts to provide the County Council with a recommended program for growth policy decision making. In addition, the report can be thought of as the county's first step in an annual examination by the Planning Board of how the county can integrate public regulatory and management processes into a more coherent and comprehensive strategy for managing growth. The Planning Board acknowledged that in their first attempt, there are still many barriers to be overcome before a finely comprehensive strategy will emerge. The system, however, as it has been developed up to this point in time by the members of the Montgomery Planning Board will hopefully exemplify a style or approach toward the development of growth management that will benefit other jurisdictions.

Appendix C contains a summary of the recommendations included in the final report of the Advisory Committee on the county growth policy. They are the citizens'contribution to the development of the county growth policy, and reflect the key role accorded to this crucial element of growth policy formation. The material organized in the Appendix is designed to complement the Framework for Action report by listing recommendations under the following headings: people, jobs, shelter, community, transportation, and nature, which

form the basic components of the county growth policy.

(1) Urban growth is said to begin with people, and as each person is different, the diversity of needs and desires presents a challenge for growth policies to encompass.

(2) As people need jobs, they are attracted to the location of employment. So jobs are the second most important generator of growth, particularly of local growth. This entails policies designed to locate and balance employment opportunities with the available work force.

(3) "People not only seek jobs, they seek shelter."[1] Like jobs, the provision of shelter in our society is primarily a derivative of the economy of the area, not a function of government. "Although some governmental programs affect it, it remains largely a market phenomenon, influenced primarily by a wide variety of factors, each assessing an abstract future in which supply and demand are balanced out in price and profit levels."[2] For these reasons not all factors can be influenced to the degree that public policy might wish to dictate.

(4) "If people can achieve a degree of satisfaction with their jobs and shelter, they look around them for community. They seek easy access to shops and services; to schools and colleges; to parks and playfields; to libraries and theatres; and for security and safety, they look for police, fire service, clinics and hospitals."[3] None of these by themselves represents the concept of community, but rather the sum of all those amenities and services serving the basic functions of people.

(5) The above four elements of urban growth can only be organized successfully where there is adequate transport. Transport provides the link to people's jobs, shelter, and community. This element is also the first to

be connected by an interconnected system, which subjects it more readily to quantitative types of analysis. It also constitutes one of the most significant constraints on the elements of growth. Transport by itself tends to shape urban form more than any of the other elements.

(6) Nature is the basis for any man made system. People need clean air, clean water, and access to open space. A balance in our life support system is needed for protection and conservation of natural resources.

> It is now becoming increasingly recognized that a proper maintenance of the ecosystems of nature, including the problem of energy supply, must be treated as a governmental responsibility greater even than that of transport and other functions. It seems apparent that in the future nature must become a constraint on growth, and a shaper of urban form equal to or more significant than transport. So nature is the last and potentially the most important element of urban growth. But growth is not one of these elements but all of them intertwined together to determine the final outcome of growth.[4]

The Framework for Action report, after outlining six elements of growth, introduces what it considers to be the three basic parameters of growth: location, timing, and cost. "The values of each parameter differ for each of the six substantive elements of growth. The orchestration of these values, to achieve balance among them, is the challenge of growth policy."[5] Location and timing are not too difficult to link up, at least analytically, using maps and graphs in formats, similar to those already developed to describe other physical phenomena that change over time. Cost is the most difficult. "A really comprehensive growth analysis should consider the cost of every action, not just in fiscal terms, but also in environmental, energy and social terms. Unfortunately, there has not yet been developed a set of measurement units that are interchangeable among different kinds of costs."[6]

The function of policy as defined by the Planning Board is a coherent set of statements, plans, regulations and actions on the part of governments from which any individual actor in the growth process can infer with reasonable certainty the response he will receive from government to any initiatives he may undertake. Policy, in accord with such a definition, must also in turn recognize the limitations of governmental power, particularly in the context of what government can and cannot do to uphold what it believes to be the proper function and balance of the public welfare. In Montgomery County the Planning Board notes that the current process does not deal directly with the issues of growth and quality of life at all.

> The county does not regulate birth rates, migration of people and jobs, or expansion of businesses. It only deals with them indirectly through the median of land use. This is understandable because in the past it was not asked to "manage" growth. It was only asked to lay out end state land use plans that would result in reasonably attractive and efficient geographic patterns of development. Only recently has the public asked for control of growth and guidelines to the over all quality of life.[7]

The existing policy model, designed to manage growth through the means of land use, does in the opinion of the Planning Board provide the base from which a more effective growth management process can develop. Montgomery County has established one of the most thorough and comprehensive land use planning processes of any local jurisdiction in the nation. From this base, it is possible to make additional refinements in the process.

The Planning Board has created a very simple model. Its foundations rest on comprehensive planning, providing the coordinative link between private and public land uses. The instrument of balance, between private and public land uses, is the master plan. From this plan ensues directions to be taken with regard to zoning and subdivision regulations, capital

improvement programs, other land use ordinances and regulations designed to regulate private land uses.

In order for the existing policy model to work it must be able, at the same time, to deal with the three parameters of the growth process, location, timing, and cost, and in turn relate these parameters back to public and private land uses.

The policy model in regard to cost has been expanded to include a public services program and a moderate priced dwelling unit ordinance to facilitate the provision of low income housing. The public service program requires the projected operating costs of facilities to be programmed in accordance with capital costs.

The Moderately Priced Dwelling Unit Ordinance requires all residential developments over fifty dwelling units to sell or lease fifteen percent of the total units at prices that are defined as moderate. This ordinance, due to the sewer moratorium, has not been applied to any existing new developments. It has also yet to meet the challenges that will ultimately ensue from the courts.

RECOMMENDATIONS MADE IN THE STAFF FRAMEWORK FOR ACTION REPORT

People

Major trends occurring in the county are the rapidly growing numbers of young adults and the decrease in the average size of family.

> Thus in summary, the prospect is for a significant increase in housing demand, generated by the bulge in the young adult age group and by the trend towards smaller household sizes at all age levels. How much of this demand will be accommodated in Montgomery County will be subject to many variables, not the least of which will be the relative supply and price of housing among the various parts of the region.[8]

Thus, one of the major focal points of future policy formation in relation to people will be housing. The existing trends appear to indicate an increased demand for multi-family units, particularly rental units. The need for rental apartment units is great in the developing nodal centers of the suburban ring where they are closer to activities and to the metro.

Jobs

Since the economy of the Washington metropolitan area is strongly influenced by the federal government, this employment generator will continue to supply the greatest proportion of jobs. Because this employment generator is beyond the county's control, it is difficult to measure how much the federal government will increase or decrease their work force. Thus, in order to estimate future job levels it is only possible to compare Montgomery County's position to that of other jurisdictions in the region and to examine the probable implications of some of the most likely trends.

Comparing Montgomery County's number of jobs with those of other jurisdictions in the region, one finds that Montgomery County has 230,000, Arlington County 130,000, Fairfax County 103,000, and the District of Columbia 614,000. About 40 percent of the county jobs are considered as serving non-local markets and 60 percent are serving service industries.[9]

In the past decade the rate of job increase has been accelerating faster than the rate of population growth. In the past three years the job total has increased by 20 percent. Increases are noted particularly in the construction, finance, insurance, and real estate areas.

Currently, 55 percent of the labor force of the county is employed within the county. This fact suggests that in the future some of this

critical mass will be likely to continue to expand. The growth report then goes on to note that although it is impossible to predict the increase in jobs over the next six years, it is possible to predict some other aspects of growth for certain locations.

"The observation made that future growth will, to a great extent, come from established industries suggests that the built-in momentum of the Rockville Corridor will continue to focus growth in this location."[10] The coming of mass transit to this area will also be expected to enhance its desirability.

"The River Road Corridor will be subject to the same pressures but to a lesser extent, but policy has already been established, through adopted master plans and previous zoning battles, to maintain this area in a low density primarily residential character."[11]

Although there is land already zoned for industrial and commercial uses on Route 24, it has not been developed rapidly in the past few years.

Silver Spring, the central business district, remains one of the largest concentrations of diverse job categories in the county. It appears that its development potential has not been fulfilled yet, and it has not seemed to be able to attract a major share of construction activity in the past few years. Silver Spring will be the first area in the county to receive the rapid rail transit service. It seems that a major public effort to enhance the attractiveness of the area could be the catalyst to spark interest in this area. Thus, the potential for Silver Spring commercial development would seem to be subject to the influence of public policy as much or more than any commercial area in the county.

The I-270 Corridor has a large capacity for new jobs under the policies of the general plan but would appear to be considerably less

attractive to the market in the next five or six years than would the Rockville Corridor. The location of new jobs in this area will also be influenced by the price and availability of land, land here being generally cheaper than land in the transit station areas. Another factor is the relative attractiveness of other sites in other jurisdictions.

The ability of public policy to guide development in various locations will be a function of the county's ability to influence accessibility of the areas by designing transportation policies consistent with other elements of growth policies.

> Another factor that can influence employment location is zoning. However, zoning policy cannot prevent new jobs from locating in Bethesda and North Bethesda, because the capacity for such jobs already exists under the zoning that is currently in force on the land. Even the proposed sector plans, which do reduce this capacity by considerable amounts in order to more closely fit ultimate development to traffic constraints and other matters of neighborhood compatability, still retain a net capacity that could absorb most of the next six years. Thus the only public policy that seems capable of preventing new employment from locating in this Rockville Corridor area, should such a policy be desired, seems to be (1) denial of sewer to this area, in favor of providing sewer in the I-270 Corridor, and/or (2) a major tax rebate or other subsidy program for employers who locate in the I-270 Corridor not given to those who locate elsewhere in the county.[12]

Shelter

The Framework for Action report makes the following comments and recommendations with regard to the housing element of the growth policy.

The county over the next five year period would require an additional 33,000 dwelling units, 20,000 single family units and 13,000 in multi-family.[13] As of July 1974, the Washington Suburban Sanitary Commission listed requests for sewerage for a total of 21,260 dwelling units, 54 percent of which were

multi-family, as compared with 46 percent single family dwelling units.[14] Only 19 percent of these were located in the Rockville-Silver Spring transit corridor. The majority of units were located in the I-270 Corridor. This would appear to indicate that the market is not likely of its own accord to produce many rental apartments in the suburban ring of the nodal areas. It would thus appear likely that a large proportion of the apartment demand in the nodal area will go unsatisfied under present conditions in the county unless there is a shift of public policy.

A recent staff survey shows that 45 percent of the present job holders in the county would be unable to afford to buy new housing at current prices, and about 30 percent of the same group would be unable to afford rental housing.[15]

One of the most promising tools to help alleviate this problem is the Moderately Priced Dwelling Unit Ordinance (MPDU) that would require 15 percent of developments of 50 or more units to be sold at prices within the "moderate" range. However, the report acknowledges at the same time that it will only satisfy about one third to one half of the apparent need.[16]

Influence of Public Policy

"The point to be made is that effective influence over the price of housing in Montgomery County will require county government to become a more significant actor in the local market than it has been before."[17] This obviously placed the county in a controversial role if there is to be developed any meaningful policy about housing. The county acknowledges that there are currently existing five major influences which local governments can use to influence the price of housing. This element is important from the standpoint of growth policy, because the ability of government to

develop housing plans is often closely scrutinized by the courts when evaluating the restrictiveness of growth policies. The influences include:

1) Control over the minimum quality of construction through building codes and subdivision regulations.
2) Control over the permissible density of dwelling units per acre allowed in the zoning ordinance. Higher density allowances may result in lower priced dwelling units.
3) Control over the consumer price of a small portion of the market through the (MPDU) ordinance previously mentioned.
4) Control over the allocation of public facilities necessary before units can be constructed. The most influential of these devices will be sewer service and subsequent policy. "At issue is the question of how far government can, or should,go in pursuing the broader public interest by attaching conditions to grant sewer service, and also at issue is the relative weight appropriate to such different criteria as order of application, type of construction, location of price, etc."
5) Control over lower housing prices in return for monetary subsidies, through devices such as tax rebates; use of the county's low interest borrowing power to provide lower cost; private mortgages; direct construction subsidies from federal, state, or local revenue sources, etc.[18]

The county has noted the following successes and failures with these levers:

1) With lowering the code of standards, the county initiated some so-called "choice" projects, sponsored through the federal government. The planning board noted that it had little results, and the question remains whether or not there are any significant savings to be gained from using this device.
2) With regard to increasing zoning densities, the MPDU ordinance seems to be the only way to pass savings on to the consumer. Currently, an inventory exists for a large reservoir of land zoned for multi-family residential use, particularly in the I-270 Corridor. How much more land zoned than is already needed to bring the price down is not known.
3) The MPDU ordinance, by offering the developer increased densities in exchange for a certain percentage of low or moderate income housing produced, seems to be the most efficient means to control consumer price of a small portion of the market. This has already been adopted by the county.
4) In regard to control over the allocation of public facilities, an Adequate Public Facilities Ordinance has been adopted in the form of Interim Sewer Allocation policy which reserves certain portions of

> sewer capacity for projects that will contain moderate or low price units. The county was able to attach these conditions to interim plants constructed by developers to alleviate sewer overflow until the area wide treatment plant will be constructed in 1978. The legal aspects of continuing this policy will be discussed in the "Nature" section. At present it remains one of the most useful tools for directing the market to produce lower and moderate income units.
> 5) In regard to monetary subsidies and/or tax rebates, they have only been used to a small degree, and not from funds derived from the county's tax revenues. The bulk of such rebates it would appear would have to come from the federal government.[19]

Of the five means of the county's influencing the provision of lower priced housing, the first three are already in effect. The last two have the greatest potential but have only been used to a small extent in the county so far.

> A finer-tuned approach to rationing sewer and other public facilities would give great leverage over the location and timing of housing, provided its use in this way were justifiable in the public interest. A subsidy or tax rebate program would be the surest way to influence price to the consumer, also provided the public would support the necessary subsidies.[20]

The above discussion has taken note of the county's efforts to suggest ways in which public policy may influence the private market to provide more low and moderate housing to meet what was noted as a crucial problem within the county. Clearly, this matter of influencing the price, type, and location of all types of housing to meet future and present demands is a complex and difficult problem that growth policy must try to resolve.

Community

The Framework for Action report begins discussion on this element of the growth policy, which can be considered to be most crucial to all of the functional elements of the growth program, by noting the difficulty of

defining the function of this element.

> The one spatial conclusion that seems to thread through many sociological works is the idea that community is fostered when the physical environment is structured so as to allow people to come together in one place for a mixed range of purposes and to foster, through this process, the opportunity for a number of unplanned, casual encounters and interpersonal transactions that are presumed to be an enriching and rewarding experience to those who wish to avail themselves of such opportunities.[21]

"The major existing centers that are contenders for use as building blocks in furthering focus of community activities are: parks, schools, and shopping centers."[22]

The county has proposed that a major effort be launched to establish recreation centers in large-scale, subregional parks which combine a series of recreational activities. Thirteen such centers have been proposed at a cost of some 65-78 million dollars. Such a center could serve greatly to enhance a sense of communtiy.

In regard to schools, the report noted that a number of programs and services were currently operating and offering a wide variety of opportunities for citizen participation, and educational opportunities.

Shopping centers might also be built to be a focus of community.

The report concludes that this may be an amorphous element to analyze.

Transportation

> One of the major problems of any growth policy effort is to forecast accurately, now, the travel patterns of the future. Relative accessibility is a key shaper of urban form, in both location and timing. Thus, future land use plans depend upon the assumptions that are made about the nature of the future transportation system. These assumptions, in turn, are based on other assumptions about how many people will choose to travel by different modes. In a free society, people will retain

> a choice. How they will exercise this choice and what kinds of options government will provide from which to choose are the two uncertainties that must be dealt with.[23]

The county's efforts to develop a mass transit system should attempt to concentrate the business destinations in tight clusters around transit stations so that walking is minimized. Such convenient access to destination points promotes transit ridership. Sector plans being developed around these transit centers attempt to concentrate development through zoning provisions around core areas, and to taper off density away from these nodes in remaining portions of the business district. Promoting ridership to these nodal points will entail the development of a neighborhood bus system.[24]

The report enumerates the following categories into which needed road improvements can be divided.

> (1) Such intracounty improvements as those roads and intersections needed to feed transit stations, etc.
> (2) Such intracounty improvements as are needed to serve the I-270 Corridor, such as the proposed two parallel arteries (one on the east and one on the west), the outer beltway connection from I-270 to I-95, the Rockville facility in whatever form it emerges from the study, the widening of I-270, etc.
> (3) Such other roads as improve connections to the rest of the region, such as the outer beltway across the Potomac to Virginia and Dulles Airport, etc.[25]

Of the three possible choices, number (2) is the most important to future growth of the county. Long term growth must go to the I-270 Corridor under the General Plan. The problem is that access to this corridor from the down county areas is already at or above capacity. The steps noted above are being instituted to alleviate this problem.

"All of these new roads to serve the corridor will take at least six years to be brought into operation."[26] Thus major growth in the corridor cannot be adequately serviced until after 1980. This is also the period of

time that is required for the development of new sewer capacity of the county. During the interim period, if additional growth is desired, the corridor will have to cope with increased levels of congestion. On the other hand, if portions of this new growth can be channelled into the nodal areas of the suburban ring, some of this congestion can be alleviated.

Nature

The Framework for Action report organized the nature element of the growth policy into the following categories: solid waste, productive resources, open space, smog, noise, water supply, storm water, and sewage. As they have important implications of the formulation of future growth strategies, particularly in regard to the development of interim sewer allocation policies, they merit close observations.

Solid Waste. Solid waste disposal at present is located in the Rockville area. A new facility, however, is due for completion in the fiscal year 1977-78. This new facility is planned to provide a recycling mechanism that will sift the solid waste and permit it to be reused or shipped out of the area. The site has thus been centrally located, and situated adjacent to the railroad; the possibility will exist in the future for rail haul to other locations. The removal of solid waste from the area will require agreements with other jurisdictions. A small backup land fill has also been provided to handle emergency situations. This plan for solid waste disposal should take care of the county for several decades. This section of the report concluded by noting that should the plan be carried out satisfactorily, solid waste disposal should not be a major constraint upon urban growth in the future.[27]

Productive Resources. The advisory committee report noted that

productive resources such as sand and gravel should be identified, preserved, and protected. The Framework for Action report noted that the county does not contain significant reservoirs of major productive resources needed by the present economy. It excludes farming from this definition because farming is protected by the rural zone.[28]

Open Space. "Past efforts of the planning commission and the state and federal governments have given Montgomery County a significant base of already acquired parks and a well recognized plan for completing the acquisition of regional and stream valley parks."[29] In spite of these efforts, more local, special, and regional parks are still needed and are in the planning stages.

In conjunction with planning for parks and open space, the county is currently engaged in the development of bicycle paths throughout the county. These studies also include standards for the location of bicycle paths along roadways and linkage of those to transit collection points.

The Planning Board has recently accepted a Historical Preservation Ordinance, and is currently engaged in a major two-year needs study of park and recreation standards.

This section of the report concluded that major considerations with regard to growth policy are whether or not sufficient funds will be available to assure the acquisition of all the areas planned for and whether or not other legislative actions will be taken to conserve open spaces such as agricultural land.

Smog. "The state of the art, with respect to air pollution, is not yet well enough advanced to be adaptable to use in growth policy. Undoubtedly,

it will become so in the near future, as the importance of this problem increases."[30] During the current and ensuing fiscal years, the planning board will be working on plans and standards for development, to comply with EPA regulations of parking and other "indirect sources" of air pollution. Also, the federal EPA and state Department of Health and Hygiene have begun to formulate guidelines for locations that concentrate various land uses that tend to have high auto trip generation related to them. The report notes that at this stage regulations establish procedures, rather than standards.

The report concludes that the matter of air pollution may become an extremely significant restraint on urban form but that at this point in time it is difficult to ascertain the effect future developments in the field of air quality control will have in relation to future growth policies.

Noise. Some research has been done in this area and more is continuing so that the impact of major new roads can be more carefully planned for. Such analyses, the report notes, will become component parts of design studies currently proceeding in a few major roadway proposals.[31]

Water Supply. Water supply is potentially a very serious problem in the Washington metropolitan area. The water supply problem is essentially beyond the control of the county, except for pressure with which the county may press federal and state authorities to act upon this problem. The report notes that it supports the advisory committee recommendations that water saving devices and increased rate structures be implemented to reduce the consumption of water.[32]

Storm Water. The planning commission has developed a major storm water study for the Anacostia River Basin through Montgomery County. Other

studies that are being developed include the storm water study of Seneca Creek and Muddy Branch areas. Further studies will be undertaken next year in down county basins that relate to central business districts and other areas of possible urban intensification.

Results anticipated for Muddy and Watts Branch will not result at this time in any constraints on existing development activity because there remains open adequate land to create additional holding ponds or retention devices.

On the other hand, Anacostia, Rock Creek, and Little Falls could conceivably yield results that would suggest an upper limit on further urbanization because of the storm water problem.[33]

Sewage. Currently the Blue Plains plant is overloaded and cannot meet water quality standards for the Potomac River. As a result of this problem, it has been necessary for Montgomery County to construct its own sewage treatments plants to accommodate future growth.

> Other treatment processes that have been explored include: (1) the concept of land disposal, or spray irrigation, by which the sewage effluent, including the nutrients and other elements, is sprayed over land areas and permitted to be absorbed in the soil and (2) the use of ozone, rather than chemicals, as a means of removing impurities. The drawbacks of the former are that it requires very large areas of land with good absorptive capabilities. The drawbacks of the latter are that it may require very large quantities of high-voltage electricity, with which to generate ozone.[34]

The above was included in the report to note that the state of the art of sewage treatment is such that there are significant differences of opinion and technical approaches to the solution of waste treatment.

After a long range of discussion chemical treatment was finally determined the most suitable method, and a site was selected and scheduled for completion in 1980. Since it will be five years until construction is

completed, the focus of the county growth policy in relation to sewer services thus logically shifts to the interim period. Measures enacted by the county to alleviate the presence of moratoria over large portions of the county pose some unique opportunities to effectuate public policy during the interim period. The literature review briefly noted the use of interim controls in the form of moratoria on development activity. The discussion to follow will highlight some opportunities for public policies to overcome some of the problems rendered by inadequate capacities, and at the same time show how these policies can be made to work in accord with local growth policy objectives.

> The problem of keeping pace with growth demand until the new advanced waste water treatment plant comes on line has three possible solutions: (1) reduce water consumption, (2) plug up leaks in existing sewers to prevent groundwater infiltration, and (3) develop interim package treatment plants which can be dismantled at the end of period. All these three proposals are currently being acted upon.[35]

In regard to water consumption, the sanitary commission has embarked on public relation programs to promote conservation of water and the use of water saving devices. In addition, the growth policy advisory committee has recommended that the rate structure should be revised to provide for increasing charges as water consumption rises above average levels. The planning board strongly endorses these measures.

With regard to repairing existing leaks in the system, efforts are actively under way to correct these problems by the sanitary commission.

With respect to interim package treatment plants, the council has approved an amendment to the Ten Year Water and Sewerage Plan (to be discussed in the following chapter) to construct four interim plants.

The first plant has already won state approval, while others still

await approval. This obstacle thus still remains a major constraint for the program to overcome. A second uncertainty concerns the method of financing the plants. The Maryland Home Builders Association has agreed to fund construction cost, through subscription or otherwise selling shares of each plant's capacity, so that the plants would be funded by the private market.

The county council has accepted this proposal for the purpose of the Ten Year Water and Sewerage Plan, with the modification that only 40 percent go to the Development Association and 40 percent be sold to the Washington Suburban Sanitary Commission. Twenty percent of the capacity would go to the regional system. Later this year developers will submit special proposals which will be the subject of special hearings. Although there is still some uncertainty that adequate capital will be available, the county assumes for the purpose of its growth policy that the intentions of the Home Builders can be implemented.

The third uncertainty and perhaps the most challenging aspect for the county growth policy to overcome deals with the method for allocating capacity from these plants.

> In the past there has been a common interpretation of laws regarding public utilities in general, and the sanitary commission in particular, that the utility has an obligation to provide sewer service on a first come first served basis to all landowners who are developing in accordance with the applicable laws and regulations of the county (e.g., zoning, subdivision, etc.). The only question at issue was the cost that might be required. In those instances in which the developer required extension of a major sewer branch, it was a matter of negotiating a so-called "contribution" to offset the additional capital cost incurred by the Sanitary Commission to extend this line earlier than might have been done.[36]

The situation can be viewed somewhat differently today with the nature of problems that now face the county. In the past there were few ceilings or

limitations on sewage treatment capacity other than cost. Now that new environmental limits and much greater costs have emerged for planning for new growth, the question is whether other criteria should properly apply to the allocation of sewer service.

> The council has been advised that a defensible legal position can be developed for a policy by which preference is given to sewer applications that meet specified criteria, provided such criteria are reasonable and necessary for the protection of the public health and welfare. Accordingly the council developed guidelines, in December 1973, for the use of capacity from the first phase of the interim package plant in the Seneca Basin and assigned to the county executive the development of specific rules for its enforcement. An interagency task force was assembled to produce this package, and on October 9, 1974, these procedures were forwarded to the sanitary commission for implementation.[37]

In summary, they provide for the division of the 210 million gallons-per-day capacity into five classes as follows (20 percent contribution to Blue Plains regional system).

1) Immediate public health problems and public facilities - 5 percent or 100,000 gallons per day.
2) Low- and moderate-income housing and public service buildings - 25 percent or 500,000 gallons per day.
3) Moderate priced dwelling unit housing (projects which include 15 percent at moderate price, as per the MPDU ordinance) - 25 percent or 500,000 gallons per day.
4) Commercial and industrial development - 15 percent or 300,000 gallons per day.
5) Small volume builders and individually owned single-family dwelling units - 10 percent or 200,000 gallons per day.[38]

The policy also requires all who are granted sewer service to develop in a period of 12 months or lose their commitment.

The county has thus attempted to set the stage for sewer development policies, at least in the interim period to be designed to effectuate development objectives.

Another strengthening factor that needs to be added to this

development formula is to establish preferences by geographical area. "What the arguments would be to defend such geographic preferences would have to be developed out of public consensus about a staging concept - that is, about a growth policy for the county."[39] For example, a policy designed to influence the location of jobs in the I-270 Corridor might need to use such a policy. Also a policy seeking to attract rental apartments in the nodal areas of the suburban ring which were noted as unlikely to be met by the market given present development preferences.

To what extent such a policy can be achieved would of course depend on legal and political support of such innovative measures. It would appear that if much of the desired growth is to proceed in the suburban ring, nodes in the next six years will be dependent upon whatever sewer allocation policy is established for the Rock Creek Interim Plant. If development is allowed to go on a first come first served basis there is reason to believe that it will be used up for development of single family and multiple family housing units in the upper Rock Creek Basin. "Thus, the question of growth policy poses also the question of the initiation of a more restrictive sewer allocation policy - one that applies geographic constraints by sub areas within the ten year envelope of the water and sewerage plan."[40]

> The Montgomery County Planning Board and its staff endorse the following as the major specific recommendations of the first annual report on Montgomery County Growth Policy:
>
> 1. Concentrate on actions which will influence growth during the 1974-80 period, as this is a period of probably economic retrenchment and of facilities constraint due to the necessary lead times for the provision of major new facilities, such as Advanced Wastewater Treatment, the Metro transit system, and roadways, that are necessary for full corridor-city development.

2. Modify existing policies which will cause almost all new growth in this period to be located in the corridor cities and in the urban fringe areas, in light of both energy shortages and housing needs of new households, to permit construction of some rental apartments and employment centers in selected down-county, mixed-use centers where a high level of public transportation is imminent--especially in Silver Spring and the Bethesda-Rockville Corridor.

3. Develop a subsidy program for multi-family, high-density rental housing in these areas, especially for retired "empty-nesters."

4. Develop, by fiscal year 1976, a strategy for concentrating and linking community facilities, especially in down-county areas, to provide needed services and enhance sense of community.

5. Explore cost-effective contingency alternatives to the Glenmont Metro line for providing public transportation in the eastern side of the county and for serving the overall population's need for work and nonwork travel.

6. Concentrate the county's public transportation strategy on serving the down-county areas of high employment and residential concentration, including the development of Metro feeder and neighborhood bus systems.

7. Secure funding for, and begin to construct, the vital transportation elements--the outer beltway, the eastern and western arteries, I-270 improvements, and the Rockville facility--needed to support planned future housing and employment growth in the corridor cities.

8. Complete the central business district (CBD) and transit station area (TSA) sector plans, scaling density to levels which public facilities, especially transportation, can support.

9. Undertake a research program to relate the planning process to the Environmental Protection Agency air quality regulations.

10. Approve a public interim sewage treatment plant in Rock Creek, with most of its capacity allocated to development of the high-density centers at transit stations.

11. Develop a set of "quality of life" indicators for use in formulating future growth policies and master plans.

12. Create a Regional Growth Policy Board in the Council of Governments to negotiate with other jurisdictions on a regional growth allocation plan.

13. Improve coordination between growth policies and County program documents: the Capital Improvements Program, the Public Services Program, the Financial Plan, and the Ten Year Water and Sewerage Plan.

14. Place a high priority on development of more detailed growth policy elements for transportation; open space, parks, and recreation; and housing and employment policies.

15. Include staging elements in all master plans to guide the Capital Improvements Program and the use of Adequate Public Facilities Ordinance.[41]

CONCLUSION

Growth policy and growth management are a continuation and extension of the planning process established by the General Plan. The General Plan in this regard establishes the locational policies for the county growth and mandates both a refinement of these policies and the development of more precise policies for staging that growth and for keeping costs low and benefits high. The Planning Board has identified a need to comprehend all the elements of growth and their relationship to each other. The elements of growth as they were organized in the growth policy reports were people, jobs, shelter, transport, community, and nature. To understand the process of growth management is to understand the importance of the parameters of location, timing, and cost, and how they affect elements of growth policy.

Concluding recommendations of the county growth policy were said to concentrate on actions to influence growth through 1974-80. The focus of locational choices posed for growth policy were to concentrate development in the nodal areas of the suburban ring, while at the same time accommodating

new growth in the cities of the I-270 Corridor. The I-270 Corridor was noted to be in need of additional facilities that could not be provided until 1980, making concentration of development activity in nodal areas a vital concept to be supported in conjunction with planning for the advent of metro in the central business districts of these nodal areas.

Recommendations in regard to timing were noted to be the necessary staging elements in all master plans to guide the Capital Improvement Program. The Adequate Public Facilities Ordinance was noted as a useful tool to implement this conception at the same time provide the ability of growth policy to have more latitude in anticipating and controlling the orderly planned provision of facilities.

Other major recommendations that the growth policy makes are to approve a public interim sewage treatment plant that would allocate certain proportions of its capacity to the nodal areas of the suburban ring. This in effect is the major short range strategy to influence the locational choices posed in the growth policy. The ability of the growth policy to achieve a consensus of action on its conception of the alternatives and strategies posed will in effect measure the ability of the growth policy to really manage growth rather than simply to let it pursue its own timing and development schedule.

A major thrust of the growth policy as it has emerged throughout the chapter is to provide guidance to the County Executive and Council in the preparation of each year's work program by orchestrating governmental policies and actions. This in turn should provide guidance to the preparation of the Capital Improvement Program, the Public Service Program, and Fiscal Program, developed by County Executive Staff, including the Ten Year Water and Sewerage

Plan, prepared by the Washington Suburban Sanitary Commission, and other growth influential agencies, both in the county and throughout the region.

FOOTNOTES

[1]The Montgomery County Planning Board, Framework for Action, p. 13.

[2]Ibid., p. 14.

[3]Ibid.

[4]Ibid., p. 15.

[5]Ibid., p. 16.

[6]Ibid., p. 18.

[7]Ibid., p. 19.

[8]Ibid., p. 20.

[9]Ibid., p. 71.

[10]Ibid., p. 75.

[11]Ibid., p. 74.

[12]Ibid., p. 76.

[13]Ibid., p. 77.

[14]Ibid.

[15]Ibid., p. 78.

[16]Ibid.

[17]Ibid.

[18]Ibid., p. 79.

[19]Ibid., p. 80.

[20]Ibid.

[21]Ibid., p. 81.

[22]Ibid., p. 82.

[23]Ibid., p. 87.

[24]Ibid., p. 89.

[25]Ibid., p. 100.

[26]Ibid.

[27]Ibid., p. 101.

[28]Ibid., p. 102.

[29]Ibid.

[30]Ibid., p. 103.

[31]Ibid.

[32]Ibid., p. 104.

[33]Ibid.

[34]Ibid., p. 106.

[35]Ibid., p. 107.

[36]Ibid., p. 110.

[37]Ibid.

[38]Ibid.

[39]Ibid., p. 111.

[40]Ibid.

[41]Ibid., p. 136.

CHAPTER 3

COORDINATION OF GROWTH POLICIES WITH OTHER JURISDICTIONS

This chapter is designed to ascertain how growth policy in Montgomery County can achieve coordination of development policies with other local jurisdictions and within their own. A first part of the chapter will examine the existing policy and process structure for shared decision making at the regional level to develop area wide plans and programs. This will entail an examination of the metropolitan Council of Governments' (hereafter COG) Metropolitan Growth Policy. A second part of the chapter will show how the county growth policy has been designed as a framework to which other county agencies can look for substantive guidance to their own plans and programs. The following comment from the Framework for Action report expresses this concept.

> We have argued in a number of places that Montgomery County cannot unilaterally make all the decisions necessary to manage its own growth. The county can, however, make a large number of decisions on its own; and it can pursue an intergovernmental strategy, designed to influence other levels and agencies of government to make complementary and supporting decisions.[1]

Montgomery County views the Council of Governments as a significant force in regional decision making, and a generally desirable one at that.

> As the role expands, so do the opportunities for its local government members to influence each other and to participate jointly in making critical regional decisions that affect growth or the distribution of housing, employment, and public facilities. That opportunity depends heavily, however, on how COG functions as a regional forum for debate and negotiation, as an allocator of Federal assistance, as an information dispenser and policy proposer, as a conflict resolver, and as a means of consolidating and making a comprehensive regional overview from its divergent local members and its separately funded Federal components.[2]

One of the major problems that the Planning Board Policy acknowledges is their relationship with the Council of Governments Land Use Committee. "The Land Use Committee, which theoretically has the most catholic concern of any COG committee in the areas of growth management, is probably the least influential in regional policy making."[3]

The report notes that the simplest approach to this problem would be to expand the function of the Land Use Committee and restructure it as a regional growth policy board. To understand the substance of this recommendation it is necessary to understand the Council of Governments' structure and the growth policy for the metropolitan Washington area. By understanding how metropolitan local governments can achieve shared decision making on a regional basis in regard to impact assessment, forecasting, and fair share agreements one can find ways for Montgomery County to effect coordination with other local governments of their developments policies.

> Local governments of the Washington area have been among the leaders in the national trend towards the development of growth management programs. Based upon their experience to date, most local governments of the Washington area have concluded that there is a need for more growth policy guidance at the metropolitan scale. Although the Year 2000 Plan has provided general guidance relative to the future configuration of growth on the Washington area, it does not deal with the magnitude and distribution of growth during the next few years, a subject with which local governments must deal in order to meet their commitments to provide public facilities to workers and residents of the region.[4]

During the past year, the need for developing a metropolitan growth policy has been reiterated by many local governments in the Washington area. Elected citizens and technical representatives of these local governments have also reflected similar sentiments in COG's forum. In fact, public discussions to date have gone beyond the question of whether there should

be a metropolitan growth policy for the Washington area. The questions now asked are what should a growth policy address? how should it be developed? how would the growth policy relate to ongoing state and local programs? how can the metropolitan growth policy be relevant to current local and state governments' legislative and budget cycles?

The Metropolitan Council of Governments Growth Policy can be said to be currently in the design stages as is Montgomery County's. The two major functions of the program can be stated as follows.

1. To provide a metropolitan framework that would serve both as a foundation for the legal and constitutional defense of local growth management efforts and as a means of effecting coordination among these different efforts.
2. To assure consistency among COG's current metropolitan functional planning activities in the area of transportation, housing, land use, water resources, and air quality and those which may develop in the future.[5]

The Metropolitan Council of Governments has considerable power to guide the development of a growth policy. While it is a voluntary association of local officials, it is vested through federal legislation and funding with functions which have extensive potential for helping local governments manage growth.

The proposed Metropolitan Growth Policy program has three focuses that distinguish it from previous comprehensive planning efforts of COG:

1. It initiates a cooperative forecasting process as a foundation for the development of metropolitan growth policy.

2. It assumes an expanded impact analysis function to augment local and metropolitan decision making.

3. It proposes, as an important part of its action program, a strategy of interjurisdictional fair share agreements on key regional growth issues.

These functions which will be enumerated briefly will serve to focus further insight into how the development of area wide programs with shared regional participation can strengthen the process of growth management at all levels of government. In understanding the potential of this mechanism, the role of Montgomery County as a member body of this council, can be examined more closely to discern their role with COG and their opportunity for effectuating sound local development policies consistent with area wide plans, programs, and objectives.

The Cooperative Forecasting Process

This process is designed to monitor changes and trends that occur in the future in the Washington area's people, jobs, and their location. The program will provide current estimates of population and employment in both short and long range forecasts. Forecasts of levels of future growth require analysis of the Washington area economy with a view toward identifying ways in which public policy can influence growth trends. This forecasting program now in the initial stage, will become a part of the metropolitan growth policy.

> The program is cooperative in the sense that local government staffs will participate directly, through the Planning Directors Technical Advisory Committee, in the development of forecast totals and in the allocation of these totals to sub-areas of the region. This will make it possible for the program to take advantage of the detailed knowledge that local governments have of their own areas.[6]

These forecast totals are needed for local planning programs, and for data analysis on broader geographic scales within the regional context. More detailed forecasts can act as a reference point for the development of metropolitan fair share agreements among jurisdictions. The concept of fair share agreements was discussed in Chapter 2 as being a potential aid in the

development of local growth control programs, and should be encouraged in a cooperatively based planning effort to more efficiently allocate growth and the externalities that often occur with it. More detailed forecasts by sub-jurisdictional planning areas are needed for use in the programming of capital facilities at both the local and metropolitan level and for local government use in developing master plans.

The cooperative forecasting program will provide four services. The first is a proposed system of cross referencing data so that the same basic data will be usable regardless of the area system being used. To make this system work, COG and local governments will have to work together to define a single series of compatible planning areas and to develop a system with an agreeable common denominator. Second, the cooperative forecasting program should concentrate on estimates of population and employment. Detailed employment estimates not provided by the census are now being compiled by COG for the Washington area for the first time. These estimates will be annually updated, if possible, at least every two years. This program will provide population estimates and employment forecasts for the gap that exists for the years between major censuses. The third and fourth elements of the forecast program include short and long range forecasts.

> The amount of lead time now required in the building process indicates that metropolitan growth is subject to policy change in the short run only to a minor degree. Therefore, short range forecasting is largely a process of accurately assessing the factors currently at work to produce a change in population and employment during the next five years. Local governments begin programming the construction of the public facilities that support growth and development five or six years in advance of anticipated construction. For the capital improvement programming process, local governments need relatively detailed estimates of future facility needs based on growth forecasts for the short range period.[7]

These forecasts will then be available for use in local capital improvement programming and in regional capital improvement programming, which will be particularly useful in the planning of transportation and water resources.

In the long run, growth rates and patterns are more subject to policy direction than in the short run. Local governments will be asked to supply policy based on long range forecasts through 1995. Through this process long range forecasts should then be updated through the cooperative forecasting process, along with short range forecasts on a regular basis. Local governments will then work with COG staffs to allocate these totals to individual planning areas by 1975. The agreement arrived at will then be reflected in a long range growth policy statement recommended to the COG Board by the Land Use Policy Committee.

Impact Assessment

Impact assessment is the second major component of the Metropolitan Growth Policy program. It provides one of the most promising means by which the effectiveness and implications of alternative growth and development plans can be measured. The proposed Metropolitan Growth Policy program for the Washington area, addressing the importance of this facet of the program, notes

> In short, in spite of much activity in this area, there is no reasonably simple and coherent system which would permit the Washington metropolitan area to assess the potential impacts of various types and levels of growth on the future quality of life, and large sums of money are not expected to be available to be devoted to such an effort.[8]

Rather, the proposal adds, the impact assessment program will be on a modest scale, using information and techniques that are currently available, with the intention of increasing the sophistication of the analysis as the tools become available. Some of the issues that the impact evaluation might

include are fiscal, economic, environmental, and social considerations.

> The impact assessment program will include assessment of the implications of growth forecasts, assessments of the impact of growth policy on metropolitan functional plans and programs, and assessment of the potential impact of growth policy on local, state and federal plans.[9]

As soon as short range forecasts by each jurisdiction become available, they will be examined to determine implications which they hold for the area and its local governments. An attempt will be made to draw general conclusions about fiscal impact in terms of public facilities required and tax base needed to be created, projections of the amount and general distribution of air and water pollution that might be generated, estimates of housing needs throughout the region, including some conclusions about probable impacts on low income people and racial minorities.

As part of the Metropolitan Growth Policy program, each metropolitan functional plan would be examined in the context of the Metropolitan Growth Policy, and, in the course of this process, it would be assessed for potential impacts on other functional planning areas.

> It would be the role of the functional planning body to conduct this assessment in conjunction with the growth policy Board and to bring conclusions to the attention of the appropriate boards and committees. As the metropolitan improvement programming process becomes established, it will provide information useful to the impact assessment process, particularly in the area of estimating facilities needs.[10]

Local growth policies will be among the determinants of the Metropolitan Growth Policy, but this process will not automatically insure complete compatibility between the Metropolitan Growth Policy and local plans and programs. The Metropolitan Growth Policy must be assessed in relation to local, state, and federal plans to determine where incompatibilities lie and what conflicts should be resolved. This is an inherent part of any growth

management program as was evidenced in the theory posed in Chapter 2 concerning shared decision making in the context of the planning management system.

The third major thrust of the Metropolitan Growth Policy program will be to develop an action program. "The action program includes the actual development of Metropolitan Growth Policy programs to implement that policy."[11] This is designed to be the core of the growth policy program, and the cooperative forecasting and impact assessment processes are designed as tools to provide the necessary organization input for the policy making process.

> The action program includes four elements: a growth policy statement, a series of fair share agreements, a Metropolitan Improvement program, and a series of legislative and administrative strategies.[12]

A number of local governments have specifically called upon COG to work with local governments to develop a fair share growth policy for the region that considers the amount, distribution and timing of population and employment growth. Local government spokesmen have said that they need such a policy to provide a regional context for their own planning and public facilities programming efforts. In Montgomery County's most recent growth policy document, Framework for Action, the need for a fair-shared commitment for growth was addressed as follows:

> The county's foremost need, in furthering work on its own growth policy, is a regional agreement on the responsibilities of each jurisdiction in accommodating different elements of future growth. This takes planning effort beyond the trend projection which has guided the allocation of population and employment in the empiric model to a cyclical process of trying to decide how much low income housing, welfare families, high income housing, high rise apartments, clean industry, warehousing, etc., each county should accept.[13]

A fair share policy would serve a number of purposes. If growth decisions can be "bargained out" as suggested by William Alonso, the results

will be greater fairness in the distribution of both costs and benefits of growth and greater efficiency on the part of local governments and public service agencies in meeting their public obligations.[14] In further support of the fair shares concept the Fairfax County Board of Supervisors stated the following:

> It is recommended that the Council of Governments formulate and negotiate approval by local governments on a "fair share" allocation of population growth in the Washington metropolitan area, including extent and general locations, and the general location to be partially determined and controlled through the procedure of a Metropolitan Improvement Program process.[15]

Local officials of the Washington area have also suggested that the fair share agreements developed for allocating federally assisted housing and disposing of sewage treatment sludge have been productive inter-governmental agreements and that similar approaches should be used in other areas as opportunities arise. Specific fair share agreements could express the commitment of participants to undertake implementation activities as well as agreements on expressions of policy.

THE METROPOLITAN CAPITAL IMPROVEMENT PROGRAM

The Metropolitan Area Capital Improvement Program (MIP) is an important function of the short range action strategy to coordinate local programs and policies. The importance of its role in the process is noted by the Council of Governments.

> The capital facility investments included in an MIP may be either, (a) projects included in existing CIP's which have a greater than local impact, or (b) new items included in the MIP, to help achieve a metropolitan plan or set of policies related to the future growth of the region. Selection of elements based on (a) implies assessing existing CIP's utilizing regionally agreed upon criteria and evaluation systems in individual functional areas. Inclusion of elements under (b) would be based

> on the metropolitan growth policy statement and the cooperative forecasting program. The M.I.P. program, which is now underway, under the direction of the land use policy committee will begin with (a) and work toward (b) as the development of the metropolitan growth policy program proceeds.[16]

All such negotiated interjurisdiction agreements whether they be based on fair share agreements, the Metropolitan Improvement Program, or impact assessment procedures, will require administrative procedures, and some programs may require legislation. Therefore, legislative and administrative strategies must be developed in support of the metropolitan growth policy and other fair share agreements. Such administrative procedures would be put into effect by agencies with direct responsibility for implementation.

Overcoming Barriers in the Development of a Metropolitan Growth Policy Program

The Council of Governments notes that,

> The responsibility of the development of a metropolitan growth policy program is still unclear within the Council of Governments. As the need for that policy to act as a unifying force for various area wide functional planning activities becomes greater the consequences of leaving that responsibility unfixed become more potentially adverse.[17]

There is no formal relationship between the land use policy committee and other policy committees with the exception of an agreement between it and the transportation policy board concerning the use of forecasts.

> The land use policy committee, as currently constituted, does not include representation from bodies which must be important participants in the development of the Metropolitan Growth Policy Program. The states of Maryland and Virginia and the District of Columbia currently are represented by their legislative bodies and not by their executive bodies.[18]

Recommendations contained in the growth policy report for Montgomery County suggests reconstituting the land use policy committee as a regional growth policy board and adding to its current membership the chairmen or

vice-chairmen of the Transportation Planning Board and the Water Resources Planning Board to insure coordination among these boards that was previously noted to be lacking. The report also recommended that the Growth Policy Board advise the COG Board on the development of a growth policy, on the growth policy implications of functional plans for water resources and transportation, and be responsible for preparing a Metropolitan Improvement Program that was previously outlined as a major thrust of the new growth policy program initiated by COG. The report prepared by the Maryland National Capital Park and Planning Commission further recommended that

> . . . a technical committee, composed of representatives of the local comprehensive planning agencies, NCPC, and state planning departments, should be formed and charged with responsibility for recommending work programs and agenda items for the board and for preparing background papers and presentations to the Board. A review process should also be established so that local governments, states, and comprehensive planning agencies could comment on the policies proposed by the Board prior to action by the COG Board of Directors.[19]

Another problem in this respect is the current uncertainty about the roles of the state versus the role of the metropolitan coordinating body, the Council of Governments. This is an unresolved issue throughout the nation. Certain pieces of Federal legislation and administrative practice strengthen the role of COG, such as the Federal Highway Acts of 1962, Section 208 of the 1972 Water Quality Amendments (Public Law 92-500), and the Clean Air Act, all of which require that local projects receiving Federal grants be in accordance with an adopted metropolitan wide functional plan, which must be updated and recertified by the federal government every year. In addition, the so-called A-95 referral process requires all federal functional plans, whether capital or operating or planning, to go through COG as a clearing house for review and recommendation.

On the other hand, Maryland state law retains direct control over such items as state roads and points of discharge onto streams in accordance with water quality standards administered at the state level, making coordination of programs at times difficult.

> In summary, there is a wide variety of old and new federal and state functional programs and requirements which have not yet been meshed together into any neat package, particularly with regard to the coordinative aspects of decision making and with regard tothe relative roles of state and metropolitan agencies. Implementation of a clear-cut local growth policy is dependent on the successful integration of all these.[20]

The most notable weakness in the existing structure is the Council of Governments' inability to implement recommendations, which must instead be based on the ability of the council to influence. It can be said, nevertheless, that Montgomery County can achieve a means by which to participate in the process of coordinative management of growth policies with other jurisdictions.

The development and coordination of growth policies at the state level is becoming increasingly more important from the standpoint of the county's growth policy formation. In Chapter 1 it was noted that the State Department of Health and Hygiene has veto power over the county's Ten Year Water and Sewerage Plan. Also, under Section 301 of the Water Quality Act Amendments, the Maryland State Environment Health Administration prepares plans which determine points of discharge and water quality, which growth policies may have to accept as given in determining optimum utilization of growth benefits. Air quality standards are also determined by the state, and regulations administered through these standards enabled the state to have veto power over new levels and types of development that may proceed.

> The sum of all these and other state activities is a significant and in some cases decisive, element of growth policy for the county. It is therefore critical for Montgomery County to have a conscious and coherent strategy for relating county and state policies which manage growth, to try and make them consistent and complementary.
>
> In some cases, state agencies are not well equipped to respond to county growth policies, even if they are consistent with state objectives. The absence of gauges at frequent intervals on most of the county's streams, for instance, makes difficult the development of data necessary to determine such things as assimulative capacity of some stretches of a stream in order to determine whether or not to approve a point of discharge for an interim sewage treatment plant. Now that the EPA has delegated much authority in this area to the state, it is important to the county that the state be funded and staffed to make accurate and timely responses to alternatives which we may need to consider in arriving at growth policies.
>
> The Ten Year Water and Sewerage Plan, while a major advance in legislative control over the timing of growth, needs some strengthening in its legislative authority over the location of growth--especially while sewer service is in limited supply. In light of conflicting legal opinion over the ability of the county to allocate treatment of transmission capacity to certain areas consistent with growth policy, new legislation should be sought to clearly provide the county government with such power, exercised through the Ten Year Plan.[21]

As required by the state of Maryland, regulations for planning water supply and sewage systems shall be consistent with comprehensive planning in the county. In this regard, the Ten Year Water and Sewerage Plan shall be used as a tool in implementing the planned development in the county by guiding elements related to the water supply and sewage systems. This concept lies central to refinements of existing growth policies to be developed in the future.

Currently, the planning board is assisting the state in developing "critical areas" guidelines. These guidelines should be incorporated in the

General Plan. Since the General Plan is to be incorporated into the state development plan, a high level of coordination can be said to be achieved through this process.

With regard to coordinating actions of local agencies in the county, the growth policy report notes that different agencies although part of the same government, may be apt to view things from their own vantage points.

> Problems also arise from the way our county government is organized under the County Charter and various state laws, such as the Maryland Washington Regional District Act (M-NCPPC's enabling legislation), and the legislation providing for the Ten Year Water and Sewerage Plan, as well as other state and federal laws, the power to make and carry out aspects of growth policy is somewhat dispersed.
>
> The charter provides that the County Executive shall produce the six year Capital Improvement Program, Public Service Program, and Fiscal Program. State law assigned preparation of the water and sewerage plan to the Executive Branch. The way in which such powers are assigned affects our ability to produce a consistent and coherent growth policy.[22]

The county growth policy should seek to provide a clear cut set of growth objectives and policies based on a consensus of actions. The Framework for Action report outlined in the previous chapter a number of focal points of how growth policy might go about achieving consistent and balanced objectives with regard to coordinating local growth policy plans and programs. For example, concluding recommendation number twelve of the Framework for Action report calls for the creation of a regional growth policy board in the Council of Governments to negotiate with other jurisdictions on a regional growth allocation plan. In recommendation number thirteen, improved coordination was called for between growth policies and county program documents: The Capital Improvements Program, the Public Service Program, the Financial Plan, and the Ten Year Water and Sewerage Plan. The achievement of consensus among growth inducing participants in the process, along with

coordination of their plans and programs, is perhaps one of the first logical steps for growth policy formulation to concentrate on. The Montgomery County growth policy has identified various coordinational linkages that need to be strengthened and has improved the county's ability to establish influence over the coordination process, given the limitations to local governmental power.

CONCLUSION

The conceptual basis upon which the county growth management program is founded is that

> . . . the major function of growth policy at the county level is to organize and coordinate the actions of government so that otherwise separate, disconnected and incremental decisions are guided by, and consciously directed toward achieving a comprehensive and internally consistent strategy for managing the major forces and consequences of growth.[23]

An approach to the formation of growth policy in this respect recognizes that there is not one single definitive and unchanging growth policy, but instead there are many different policies instituted by an intergovernmental arena of policy makers, which act together to influence the final outcome of growth. Montgomery County envisions its policy framework and those of other governmental forces acting together to influence the relative location, amount, timing, and cost of growth. Policies that can be instituted to effect the final outcomes of these critical parameters are influential to various degrees in the policy making arena, given the degree of legal power, political commitment, and financial resources enabled to be exercised in each case. Some decisions are beyond the realm of local influence.

The county recognizes that not all policy decisions on growth management can be made at one time, as the process has been stated to be necessarily

a continuing one, and composed of a host of governmental policies aimed at influencing or controlling growth. For example, in this study, area water plans, sector plans, the Ten Year Water and Sewerage Plan, the Capital Improvement Program, the Fiscal Program, and the long range regional transportation plan are all determinants of local growth policies.

> Most of these crucial policy decisions have their own time tables set by law, charter, or the time necessary for its preparation, hearings and action. It is not possible - nor even necessarily desirable - to consolidate all of these policies into a single document.[24]

The Planning Board in the formation of their growth policy thus attempts to insure that programs will be designed to reinforce each other, rather than conflict. The county's growth policy report in this respect, by describing conditions, problems and trends and broad based policies, provides guidance for a wide variety of future governmental action.

In this respect the adoption of more specific plans and programs will be left up to the County Council to determine the extent to which it will follow the logic of the Framework for Action and the extent to which other agencies should tailor their own plans and programs.

The identification of the opportunities to influence the development of other supporting growth policies, such as the state's policies, is crucial to the formation of developing a unified planning program to manage growth.

FOOTNOTES

[1]Ibid., p. 127.

[2]Ibid., p. 128.

[3]Ibid.

[4]Metropolitan Washington Council of Governments, Metropolitan Growth Policy Program, February 1975, p. I-1.

[5]Ibid., p. S-1.

[6]Ibid., p. III-4.

[7]Ibid., p. III-6.

[8]Ibid., p. III-9.

[9]Ibid., p. III-10.

[10]Ibid., p. III-12.

[11]Ibid., p. III-14.

[12]Ibid.

[13]The Montgomery County Planning Board, Framework for Action, p. 129.

[14]Metropolitan Washington Council of Governments, Metropolitan Growth Policy Program, p. III-14.

[15]Ibid., III-14.

[16]Ibid., III-17.

[17]Ibid., IV-8.

[18]Ibid.

[19]Montgomery County Planning Board, Framework for Action, p. 129.

[20]Ibid., p. 133.

[21]Ibid.

[22]Ibid., p. 134.

[23]Royce Hanson, Growth Policy: The Next Steps (A Memorandum prepared for the County Council, March 5, 1975), p. 1.

[24]Ibid., p. 2.

PART IV

CONCLUSION

The purpose of this study has been to suggest approaches that can be utilized by local governments in the development of their local growth policies. The organization and analysis of material contained in the study centered around the following questions.

1) How has the county proceeded to develop a growth management program?

2) How has the county incorporated into the policy making process the concept of timing the location of future development?

3) How has the county coordinated development policies with other local jurisdictions and within their own?

4) How can the county improve its ability to manage the future outcome of growth?

The case study has answered the first three questions. As an answer to the fourth question a discussion of the obstacles yet for the county to overcome will formulate the conclusion of the thesis. Briefly enumerated in the order they will be discussed are the summarized recommendations.

1) More specific direction is needed in the County Growth Policy to guide the Capital Improvement Program, and the Ten Year Water and Sewerage Plan. Together these policies should formulate the basis of a county staging policy which has yet fully to emerge.

2) The amount and rate of growth to be encouraged in various portions of the county should be more firmly established as a matter of public policy.

3) More rigid development controls are needed. These would consist primarily of more forceful sewerage allocation policies which would have the power to favor some geographical areas over others within the boundaries of the sewer envelope.

4) Stronger centralization of administrative authority to formulate growth management strategies should emanate from a newly created division within the planning commission, whose express function is to monitor and revise annually updates and improvements needed in the annual growth policy.

5) There exists a need in the county and in other localities for a greater utilization and development of techniques to measure the "costs" of growth. In Montgomery County there was an absence of fiscal impact assessment of development alternatives' effects on the tax base. More thorough investigation of the social impacts of higher concentrations of development on people should be ascertained, and translated into a desirable quality of life.

6) The application of the Adequate Public Facilities Ordinance should be strengthened to include "ceiling lids" temporarily established for each planning area to coincide with the programming of capital improvements. Specifically determined levels of growth at each location should be enforced through a more precise determination of the adequacy of public facilities. This action might entail determination of the adequacy of public facilities by use of a "points" system similar to the one developed by Ramapo, New York.

7) The county should be more specific with respect to delimiting the time schedules of other agency facility schedules which have a significant effect on the development of growth policy.

8) The future of managed growth under our present system's view of

property rights is discussed with some suggestions for future reform which would entail a gradual abandonment of the status presently awarded to private property owners' rights that instead should be allocated to society.

1) One of the primary functions of growth policy should be to integrate a comprehensive staging blueprint of planned future development activity. The case study illustrated that the primary means to implement such a staging policy is through the use of the Ten Year Water and Sewerage Plan, and the Capital Improvement Program. The proposed Sewerage Allocation Policy will also act in a timing capacity if the majority of the new sewer authorizations made available from the interim treatment plants are allocated to the nodal areas of the suburban ring. (See Part III, Chapter 1).

The development of the first round of policy formation has failed to provide specific guidance for the Capital Improvement Program, and the Ten Year Water and Sewerage Plan. Without specific delineation of the range and types of improvements that should be implemented to effect planned growth, an explicit growth policy will fail to emerge. In order to clarify where growth will take place, and how much will occur, these programs should be closely coordinated. A comprehensive staging blueprint should emerge from these policies and be contained in a separate document that would clearly designate the county's staging policy in support of growth management objectives. This would serve to centralize the programming of capital improvements which presently are dispersed between the County Executive who is responsible for the formation of the Capital Improvement Program, and the Washington Suburban Sanitary Commission, which is responsible for preparing the Ten Year Water and Sewerage Plan. The Planning Board as formulators

of an annual growth policy should be vested with the responsibility to prepare the program which would consist of clearly and explicitly expressed timed phased strategies composed of those improvements most likely to effect managed growth.

2) Montgomery County's management system needs to consider more specifically the amount of growth that should be supported in various locations of the county in the short run, including the rate that growth should be designated to occur. Policy should specify the amount of growth that will be planned for in the I-270 Corridor, and how much of the expected new growth in the county should be shifted to the suburban ring from the I-270 Corridor, which is one of the primary aims of the County Growth Policy. The Framework for Action report notes that the total holding capacity of the I-270 Corridor is approximately 400,000 with 52,000 presently residing in the corridor. The Inner Suburban Ring has a holding capacity of 227,000 and currently has 227,000 residents, while the outer suburban ring has a capacity of 400,000 and currently has a population of 266,000.[1] The Growth Policy does not suggest how economic and migratory trends will affect these carrying capacities in the short run, or how trends occurring in these areas might be influenced to benefit growth management objectives. Subsidies were briefly noted in the Framework for Action report as a possible means by which to influence employers to locate in the nodal areas of the suburban ring as opposed to the I-270 corridor, but a specific strategy fails to emerge.

The means to more precisely predict the rate and amount of growth that should be encouraged is to provide specific guidance to the Capital Improvement Program and Ten Year Water and Sewerage Plan, to commit specified levels of resources to effect planned growth. By more precisely programming

and locking into place the rate and amount of facilities that should be encouraged in different parts of the county, a more certain development future will emerge. The county will also be conserving resources, and acquiring cost savings by timing the installation of facilities when they are needed, not too soon or too late. In addition, this strategy might aid in determining a desired balance among various types of uses of land, residential, commercial, and industrial, by timing residential construction to business and industry. The County Growth Policy makes little mention of the rates that should be encouraged or possibly discouraged with various types of land uses as no county-wide staging policy emerges. This should be rectified.

3) More forceful sewerage allocation policies must be adopted by the County Council if the nodal areas of the suburban ring are to develop within the next six years. The County Planning Board noted that preferences by geographical areas will need to be developed within sub-areas of the ten year envelope of the Ten Year Water and Sewerage Plan. This may entail, according to the Planning Board, strengthening the legislative authority derived from the state to control the location of growth through the regulation of utilities, especially while sewer service is in limited supply. This authority would enable the county to establish allocation of capacities as they become available to specified types or uses (e.g., apartments needed in the nodal areas) as well as criteria applied to geographic location in allocating a majority of new capacity to the suburban ring. This is the most effective approach to bring about a shifting of any development from the I-270 Corridor where currently a large demand exists for extension of sewer service. If the County's Growth Policy is to be successful during the next six year period, the Planning Board should concentrate its efforts on obtaining

stronger regulatory powers to control the authorization of sewer service as this is the key to effecting the concentration of development in the nodal areas to support mass transit and also to relieve overburdened facilities temporarily in the I-270 Corridor.

4) In order to bring about a truly unified Framework for Action, a more explicit role should be accorded to the Planning Board for the development and administration of future growth policies. It was noted that presently this power is somewhat dispersed. In order to alleviate this problem an independent division should be created within the Planning Commission, with the expressed function of monitoring, evaluating, and coordinating growth policies. At present there are several Community Plans Divisions: research, transportation, zoning and subdivision, and environmental planning divisions, each contributing to the development of the County Growth Policy. An independent division vested with the responsibility to gather data for the county staging policy and with other growth management functions would tend to make the development of growth policy a coordinated process instead of a series of incremental efforts from time to time by various divisions.

Presently planning and zoning and subdivision powers lie solely in the County Council, exercised under the Regional District Act both through the Council's direct powers and through the Park and Planning Commission.[2]

The charter also provides that the County Executive produce the Six Year Capital Improvement Program, the Public Service Program, and the Fiscal Program, which is produced by an independent planning staff under the direction of the County Executive.

In the Framework for Action report the Planning Board recommended that they be made responsible for recommendations for major public facilities which

have growth policy implications. The County Executive, however, reacted by accusing the Planning Board of attempting to centralize even greater power at the expense of the County Executive, and rejected the proposal.

It is the contention of this thesis that this approach should continue to be pursued by the Planning Board, in order that greater centralization of authority for coordinating future growth policies is guaranteed to the agency vested with comprehensive planning authority for the county. Whether or not this administrative reorganization will come about will depend on the acceptance of greater centralization of responsibility in the Planning Board as the chief formulators of the County Growth Policy.

5) Costs of growth appear in many different forms in both the public and private sector. Fiscal, social, and environmental impact analysis was described in the literature review as crucial to the formulation of future growth policies. These forms of analysis were not readily dealt with in the first round of policy making. For example, there is a lack of analyses regarding the cost of various alternative rates of growth and their effect on the tax base. A satisfactory analysis should include "economies of scale" that might be realized by various development options. Analysis of the fiscal impact of development alternatives is scheduled for completion in the fall of 1975. This study will assess the effect on the tax base of various rates of growth through the use of a computer model entitled MUNIES.

Social impacts noted in the literature review were concerned with growth effects on people. There has been no adequate measurement of the impact of conditions of life in high density residential areas on the residents of the nodal areas. Furthermore, the precise characteristics of a good quality of life still elude definition. It is interesting to note that

although many people are calling for higher density development as a solution to sprawl and environmental problems, these increased levels of development activity are apt to deteriorate the quality of life in urban areas even further.

Since the intent of the first round of policy formation was said to be largely an exploratory effort to focus on the present growth management system and things needed to improve it, this may explain the lack of focus accorded these crucial concepts in the first round of policy formation. However, as suggested in the literature review, analysis of social, fiscal, and environment factors should have preceded even the first round of policy formation in order that trade-offs and alternatives might be more clearly specified. Perhaps this suggests that the first annual report on the County Growth Policy might have been somewhat premature considering that sector plans for some areas of the suburban ring have yet to become adopted.

6) The Adequate Public Facilities Ordinance has been hailed by the Planning Board as a major step forward in the development of the growth management system. Its major shortcoming appears to be in its application. The Growth Policy does not establish firmly enough its linkages with the programming of future public facilities; therefore, the application of the Adequate Public Facilities Ordinance is administered in too loosely knit a fashion. "Unlike the Ramapo Plan, Montgomery County provides a broader definition of adequacy of facilities without using a points system."[3] Perhaps Montgomery County would benefit from a well-defined point system in which the adequacy of facilities were established in advance of development requests and in conjunction with "ceiling lids" or predetermined amounts of growth that would be deemed most suitable at growth centers throughout the county.

Montgomery County seems to be determining the adequacy of public facilities in a slightly less rigid fashion. For example, the present method is to measure each new development proposal by its ability to maintain necessary supportive facilities. If adequate levels of facilities do not exist development would be postponed until the necessary supportive facilities are in place. The problem with this approach as it now stands is that the future timing of development activity is left up to when future facility programming will be deemed necessary by either the agency involved in the facility provision or by the Planning Board, according to their own varied and perhaps conflicting time schedules. Somehow this approach seems to be taking growth management back a step from the specific formulation of public policy to a far more flexible approach that may lose some of its effectiveness.

The problem with the county's present approach is that no specific priorities appear for different agencies to guide the development of their work programs.

It is the contention of this thesis that the development of growth policies despite the warning of the Planning Board should tend to be more specific with respect to delimiting and recommending the timing of future facility schedules to aid in a more direct approach in implementation of the General Plan and Framework for Action.

The development of growth policies in this respect will be more closely allied to the concept of Ramapo's timed development scheme. A strategy developed in this manner may be able to discern more readily how many people will be located in the nodal areas as opposed to the corridor and how much corridor development can be postponed given the range of possibilities for public policy to influence the timing and location of development.

The thesis contends that fairly rigid control is the most suitable approach for controlling the location, timing, and costs of future development activity. Refinement of the existing policy framework, most notably a greater delineation of rates and amounts of growth to be affected by each growth management tool, will enable the county policy model to determine more specific outcomes of growth and thus increase the county's ability to control location, timing, and costs. Without these necessary refinements, the private market's locational choices and preferences are likely to prevail, defeating the management of growth.

8) Some concluding remarks are now in order for what the future of the cities might look like under managed growth strategies. They will probably not be much different from what they are today, but they may extend farther out into the countryside. This is not only disappointing to the author of this thesis, but it will be to those who will live in cities and suburbs of tomorrow. Comprehensive planning will continue to perpetuate this dilemma by focusing on regulatory activity to control the negative aspects of development instead of creating positive incentives for quality development. Positive incentives must be created for the development industry to work with local officials to obtain the best development possible. Probably, however, growth policies will continue to operate in a loosely coordinated fashion because many of the methods to measure and coordinate the impacts of new developments have yet to emerge. The greatest hope for changing this dreary picture may continue to elude us unless there is a dramatic shift and realization that urbanization rights arise from the land itself occurs.

Development potential, on any land in the community, results largely from the actions of society. As society will ultimately have to bear the

consequences of development longer than the property owner, society should allocate such rights in accord with what it deems to be most beneficial to itself. In the future this may entail separating commodity rights in the land from urbanization rights in order to control growth.

Fred Bosselman, author of The Taking Issue, notes that "more thorough consideration should be given to the possibility of statutory standards to determine when compensation must be paid. The British have found their experience with such standards highly desirable."[4] The system of compensable regulations proposed for the American Law Institute's Model Land Development Code is an example of such a system. It proposes a code system under which the local government could choose to pay compensation for any land use regulations held to be invalid as a taking.[5]

The proposed code provides that whenever a regulation is challenged in court as one that constitutes a taking in the absence of compensation, relief may be withheld until the local government has had opportunity to provide compensation.

> If the complainant is a landowner challenging the validity of an order, rule, or ordinance applicable to his land, and if the court is satisfied that as applied to his land the order, rule, or ordinance constitutes a taking of his property without just compensation, the court shall retain jurisdiction if it further determines that the limitation on development could be lawfully imposed if compensation were paid and request the local government to determine whether it wishes to institute proceedings . . . to pay compensation.[6]

> In England twenty-eight percent of the county is conserved as open space through non-compensable regulation. Parks are substantially in private ownership, but the government through payment of a small "consideration" encourages private land owners to permit public access to land.[7]

Fred Bosselman again notes, "Why should not the rate of return and the reasonableness of the capital investment in the land be the cause of public investment and inquiry, at least when the gain is attributable in a large part to the benefits extended by the public?"[8] This is currently the subject of an investigation by Donald Hagman entitled "Windfalls for Wipeouts" in which he calls for the recapturing of some of the windfalls governments encourage through land investment by the creation of facilities to sustain new development.[9] The author notes, "I believe that a planning system that does not address the windfall and wipeout problem is perceived as basically inequitable, and no planning system so perceived can survive."[10] Perhaps solution of the future problems of managed growth might be brought under control by reevaluating why we hold land in such high esteem in this country. And why has not land regulation evolved to the status of other quasi-public "commodities" that are regulated--i.e. public utilities--for the protection of the public welfare?

Unless our present system of regulating land use and managing growth incorporates some of these fundamental changes, metropolitan areas will continue to pose threats to government's ability to control the processes of urbanization.

FOOTNOTES

[1]Montgomery County Planning Board, Framework for Action, p. 123.

[2]Ibid., p. 134.

[3]Einsweiler, "Comparative Descriptions," p. 313.

[4]Bosselman, The Taking Issue, p. 266.

[5]Tentative Draft #5, American Law Institute Model Land Development Code, Section 4-205 (1973).

[6]Bosselman, p. 303.

[7]Reilly, p. 170.

[8]Fred Bosselman, "On Land Policy," Planning the ASPO Magazine, June 1975, p. 17.

[9]Donald G. Hagman, "Windfalls for Wipeouts," Management and Control of Growth, Vol. 2, pp. 275-295.

[10]Ibid., p. 278.

APPENDIXES

APPENDIX A

MEASURES FOR EVALUATING THE IMPACT OF LAND DEVELOPMENTS

IMPACT AREA[1]	MEASURE
I. Local Economy	
	1. Net change in government fiscal flow (revenues less operating expenditures and annualized capital expenditures).
	2. Number of new long-term and short-term jobs provided.
	3. Change in numbers and percent employed, unemployed, and underemployed.
	4. Change in property values.
II. Natural Environment[2]	
	5. Change in level of air pollutants and number of people at risk or bothered by air pollution.
	6. Change in level of water pollutants, change in tolerable types of use, and number of persons affected – by each body of water.
	7. Change in noise and vibration levels, and number of people bothered by excessive noise and vibration.

8. Amount and percent change in greenery and open space --on the development site itself and in the community.

9. Number and types of endangered or rare species that will be threatened.

10. Change in abundance and diversity of wildlife (or the amount and percentage of habitats threatened).

11. Change in frequency, duration, and magnitude of shortages (of energy and fuel, or whatever resources happen to be in critically short supply), and the number of persons affected.

12. Change in number of people and value of property endangered by flooding, earthquakes, land slides, mud slides, and other natural disasters.

II. Aesthetics and Cultural Values[3]

13. Number of people whose views are blocked; degraded; or improved.

14. Visual attractiveness of the development as rated by citizens and "experts."

15. Percent of citizens who think the development improves or lessens the overall neighborhood attractiveness, pleasantness, and uniqueness.[4]

16. Rarity and perceived importance of cultural, historic, or scientific landmarks to be lost or made inaccessible.

V. Public and Private Services

17. Change in rate of water shortage incidents.

18. Change in indexes of drinking water quality and safety.

19. Change in number and percent of citizens who are beyond x minutes travel time from a hospital emergency room (using such time as the community considers reasonable).

20. Change in average number of days of waiting time for hospital admittance for elective surgery.

21. Change in rate of crimes in existing community and in the development area.

22. Change in percent of people feeling a lack of security from crime.

23. Change in fire incidence rates.

24. Change in rating of fire spread and rescue hazards.

25. Change in the number of people within--or beyond--a reasonable distance (x miles or y minutes) from recreational facilities--by type of facility.

26. Change in usage as a percent of capacity; waiting times, number of people turned away; facility space per resident; and citizen perceptions of crowdedness at recreational facilities.

27. Change in perceived pleasantness of recreational experience.[5]

28. Change in number of students within x minutes walk or y minutes ride from school, by type of school.

29. Number of pupils having to change busing status (from walking to busing or vice versa).

Land Development

30. Change in crowdedness "breakpoints" (such as change in number of shifts) or indicators (such as change in student-teacher ratios); student, teacher, and parent perceptions of crowdedness and pleasantness of school.[8]

31. Change in vehicular travel times between key origins and destinations.

32. Change in duration and severity of delays during peak-hour congestion.

33. Change in likelihood of finding a parking space within x distance from destination.

34. For *residential development*: Percent of residents who can get to work within x minutes by public transportation that comes within y distance of their residence. For *commerical-industrial development*: Percent of employees or shoppers who can get within y distance of the development by an x-minute ride on public transportation.

35. Change in the rate of traffic accidents (or change in expert rating of hazard presented).

36. Number and percent of citizens perceiving a change in neighborhood traffic hazard; and change in pedestrian usage of streets; sidewalks, and other outdoor space.[8]

37. Change in number of stores and services (by type) available within x distance of y people.

38. Change in the percent of people generally satisfied with local shopping conditions (access, variety, crowdedness).[8]

Housing and Social Conditions

39. Change in number and percent of housing units that are substandard, and change in number and percent of people living in such units.

40. Change in number and percent of housing units by type (price or rent range, zoning category, owner-occupied and rental, etc.) relative to demand or to number of families in related income classes in the community.

41. Number of residents, or workers, displaced by development—and by whether they are satisfied with having to move.

42. Change in the population distribution by age, income, religion, racial or ethnic group, occupational class, and household type.

43. Change in percent of people who perceive their neighborhood as too crowded.[8]

44. Change in frequency of visits to friends among people in the existing neighborhood after the new development occurs, and frequency of visits between people in the existing neighborhood and the new development (primarily for retrospective evaluations).

45. Change in percent of people perceiving the neighborhood as friendly.[8]

46. Number and percent of people with change in "visual" or "auditory" privacy.

47. Number and percent of people perceiving a loss of privacy.[8]

48. Change in percent of people who perceive their community as a good place to live.[8]

Most of the above measures are applicable when the changes are reported by the specific clientele groups or population segments that are affected.

SPECIFIC TECHNIQUES OR SYSTEM ELEMENTS

CASE STUDIES	BOCA RATON	DADE CO.	RAMAPO	FAIRFAX CO.	LOUDOUN CO.	MONTGOMERY CO.	PRINCE GEORGE'S	BOULDER	PETALUMA	SACRAMENTO CO.	SALEM
(1) Fee simple acquisition (park, open space, etc.)	●	X		X		●	X[2]	●	●	●	
(2) Land banking		X[2]		○		○[1]		●			
(3) Compensable regulation											
(4) Less than fee simple			●			●		○			
(5) Location of facilities to influence growth		○	●		●	○	○	○	●I	●	○I
(6) Access to existing facilities		○		●		●					●I
(7) Floodplains, stream valleys, wetlands, etc.		○		X	X	X	X	○	X	○	●
(8) Critical areas					X						
(9) Development of regional impact	XI	XI									
(10) Other special protection areas										●	
(11) Pollution controls		X									○I
(12) Development Rights Transfer											
(13) Covenants and Agreements		X									X
(14) Conventional zoning	X	X	X	X	X	○	○	X	X	○	○
(15) Conditional zoning				X						○	●
(16) Contract zoning											
(17) Planned Unit Development (PUD)		○		X	○	●	○	○	X	●	X
(18) Flexible (cluster, average density) zoning			X	X		○	X	○		●	X
(19) Performance standards					X						
(20) Bonus and incentive		X				●			X		X
(21) Floating						●					
(22) Special permit	●		○	X		X	X		●		
(23) Variance	●	X	○	X		X	X		X		X
(24) Subdivision—Conventional	X	X	○	X	X	X	X	X	X	X	○
(25) Exclusive agriculture or non-residential									X	○	●
(26) Exclusion of multiple family, mobile, etc.			X[4]								
(27) Minimum floor area		X									
(28) Minimum lot size	●	X[5]	○		○	○	○			○	○
(29) Height restriction			X			○		●			
(30) Off-site adequacy of facilities			○		●	●	○		○	X	○
(31) Mandatory dedication		○	●		●			●	●	X	P

*Robert Einsweiler "Comparative Description of Municipal Guidance Systems," Management and Control of Growth, Vol. 2, pp. 291-298.

Comparative Descriptions of Selected Municipal Growth Guidance Systems

CASE STUDIES	BOCA RATON	DADE CO.	RAMAPO	FAIRFAX CO.	LOUDOUN CO.	MONTGOMERY CO.	PRINCE GEORGE'S	BOULDER	PETALUMA	SACRAMENTO CO.	SALEM
(32) Money in lieu		o	•		•			•	•	X	P
(33) Low/moderate income housing requirement						•		•	•		
(34) Urban and rural service areas											•
(35) User and benefit fee								•			•
(36) Special assessment		X									•
(37) Preferential taxation		XI	o		•	o	o			•	o
(38) Development districts						o					
(39) Annexation								o	•	XI	oI
(40) Official mapping		X	•			X	X				
(41) Capital programming		o	o	•	o	oI	oI	o	o	o	o
(42) Plan or elements	X	X	•		o	o	•	o	•	•	•
(43) Longer term limit line/serviced area		o								•	o
(44) Shorter term serviced area		o	•			•	o		•		
(45) Total population charter provision	•										
(46) Annual permit limits									•		
(47) Population and employment targets							o				
(48) "Fair share" allocations				oI		oI	oI				
(49) Planning moratoria & interim controls	•	o	P	•					P		
(50) Environmental moratoria				•I		•I	•I				
(51) Administrative processing & delay											
(52) One-stop permit											
(53) Environmental impact or assessment		o							X	X	
(54) Cost/benefit analysis											
(55) Impact zoning		o									
(56) Land use intensity rating system											
(57) Information, education, monitoring & technical assistance		o		•		o	o				•

LEGEND
- • system elements
- o emerging system elements
- X other controls not in the system
- I intergovernmental
- P used previously

[1]Advanced land acquisition program with revolving fund of $3,000,000.

[3]Advanced land acquisition but limited to low income housing.
[4]Dade gains agreement for restrictive covenants relating time phasing, low income housing, and other restraints in lieu of PUD provisions.
[5]While there is no provision for multi-family housing in the unincorporated area, multi-family housing is provided in the incorporated villages.
[6]In agriculture zones to protect land.
[7]Actually a special provision in the zoning code for protecting street right-of-way.

Public Acquisition

Government has the greatest capability of managing land in the public interest when it is publicly owned. The four forms of ownership are listed in order of degree of control and cost of acquisition from highest to lowest. The four methods are mutually exclusive for any given site. A choice must be made. From a public fiscal standpoint, that technique would be selected which achieves the public purpose at least cost. This would normally suggest other than fee simple. However, the least cost route may not in all circumstances be the most politically feasible nor result in the greatest equity.

1. *Fee simple acquisition*–Acquiring full title to land for public purpose such as a park, open space, or school. This technique is employed when full use of the property by the public is required. It provides the public with the greatest flexibility in use of the site, but it is the most expensive form of acquisition.
2. *Land banking*–Public acquisition of land where urban expansion is expected and holding it for timely and appropriate use by the public or private sector. If the land is to be made available for private development, it may be retained in public ownership and leased to private parties or it may be sold with deed restrictions. Fairfax County has committed $2 million in revenue sharing funds for land banking but has not allocated it. Boulder is preparing a land banking program. Montgomery and Prince George's counties have long-standing advance acquisition programs with revolving funds [that are not truly land banking, but placed here as the closest title].
3. *Compensable regulation*–Zoning as an exercise of police power becomes unconstitutional when it results in a "taking" for public purpose. When this occurs, the two most common approaches are to rezone for an acceptable use, or to create a non-conforming use: that is, a use not bound by the zoning around it. Compensable regulation is a technique of combining compensation with constitutionally acceptable police power regulation. One variation of this approach would be zoning for a restrictive use, then condemning the remaining rights that were not in conformity with the zoning, and then spreading the cost of this action on adjacent benefited properties through a special assessment.
4. *Less than fee simple acquisition*–This includes such items as scenic easements or rights of trespass or other partial uses of the land which would remain in private ownership. This technique is employed where less than full rights to the property are required because it normally results in less than full cost. But the acquisition of partial rights to the land, e.g. the development rights, would most likely cost the same as fee simple acquisition in rapid growth areas.

Public Improvements

5. *Location of facilities to influence growth*–This refers to the placement of roads, sewer, water, and other support facilities essential for development as a means to influence the location of development. Success is obviously contingent on the necessity for the facilities. Sewer and water systems have little effect if on-site systems are acceptable and relatively inexpensive. This technique is frequently combined with (30) adequacy of off-site facilities and capital programming (41) to constitute a simple public investment management process for influencing the location of growth. (See Ramapo, Loudoun, Montgomery, Prince George's.) Combined with environmental moratoria (50), it can restrain or stop growth for a short time.
6. *Access to existing facilities*–The permit to tap into a sewer line or water line, or for a curb cut to a street or highway, is an additional timing control when added to item 5 above. The concept of limited access highways is in some instances being extended to limited access sewer and water system passing through areas that are premature for development. Access is frequently tied to programmed capacity of sewage treatment facilities. It figures in many sewer moratoria which have been established expressly because of lack of sewage treatment plant capacity.

Environmental Controls

7. *Floodplains, stream valleys, wetlands, shorelands, slopes, mountainous areas*–This set of land development controls has emerged to protect natural processes such as flooding, stormwater runoff, ground water recharge, or to prevent development in sensitive resource areas such as mountainous areas, slopes, and shorelands where erosion, land slippage, and other problems could occur with development. Many ordinances are of the specification type identifying express uses which are allowed or prevented or specifying exactly where that development may occur. Emerging controls are of the performance type in which a showing must be made that the natural process or critical resource is not damaged or infringed upon by the proposed development. Paralleling these concepts are the differing points of view of preservation and protection. Some advocate absolute preservation of sensitive areas by prohibiting any kind of development activity. Others using the

performance approach specify a degree of care to be taken in the area allowing the market to operate within those performance restraints.

8. *Critical areas*--This term, derived from the American Law Institute "Model Land Development Code" has been picked up by various states in legislation. It generally refers to an environmentally sensitive area in which residents of the state other than those in the local government jurisdiction making the land use decision have an interest. This interest is usually exercised via state designation and regulation of activity within the area. Conceptually, the technique is applicable at any governmental level. Of the eleven cases, only Loudoun County is presently involved in using a form of this technique. It also is in use in the state of Florida and may appear in local systems there.
9. *Development of regional impact*--This title is also from the ALI "Model Land Development Code" and is appearing in state legislation in varying forms. It parallels the critical areas approach in recognizing interests beyond the immediate locality. The concern is for developments permitted by local governments which have impacts beyond the government's jurisdiction. Examples include development of major private facilities such as regional shopping centers or industrial parks, and public sector development such as a major airport or major highway. The intent is to enable those with an interest in the decision to participate in the decision. The most common form of use to date is state designation or state criteria for the designation of areas, accompanied by a set of binding guidelines to restrain activities in those areas. The State of Florida has legislation that involves Dade County and Boca Raton.
10. *Other special protection areas*--The only special area encountered is for seismic protection in Sacramento County.
11. *Pollution controls*--In environmentally sensitive areas or in areas of substantial development, air and water pollution standards and limits could have an effect on further development location. For example, if the water quality standards prevent dumping sewage effluent, that constitutes a limitation on development itself. Likewise the Environmental Protection Agency's "complex source" or indirect source standards dealing with air pollution from the users of major stadia, shopping centers, and other developments of high traffic concentration may be used as a restraint on the development and location of such land uses. Nondegradation clauses in pollution standards also may have development locating effects. Only Salem and Dade County identified pollution controls as part of the development management system.

Development Rights Transfer and New Property Interests

12. *Development rights transfers*--TDRs have received much attention recently. It has been used in limited forms in New York City and elsewhere for some time. There are many variations proposed but, in general, the schemes provide all landowners with development rights. Then, based on a plan, there are designated areas where development is restrained and areas where development is permitted. An owner in a restricted area can sell his rights through a market mechanism to an owner in a permitted area who may have fewer rights than he needs in order to develop. The technique can be combined with environmental and other restraints on development to enable the individual land owner to recoup or obtain benefits from previously existing or potential development rights. The technique is a response to the increasingly restrictive use of the police power which has resulted in "windfalls" and "wipeouts" to individual owners and tremendous pressures on the part of owners and developers to be on the "windfall" side of the equation. The technique prevents wipeouts and spreads windfalls; however, several areas of impact are still subject to speculation--the effect on price of development rights, problems of allocating second or third round rights, the effect on densities in permitted areas, legal questions pertaining to police power, and equal protection applications. The TDR approach could be utilized in lieu of zoning with compensation (3) [above] in restricting development. The states of New Jersey and Maryland have introduced such legislation. Fairfax County is actively investigating the technique.

Restrictive Covenants and Other Agreements Running with the Land

13. *Covenants-Agreements*--This category includes the whole array of deed restrictions, easements, and other negotiated agreements incorporated in land title documents. These are private agreements that transfer with ownership. Restrictive covenants are frequently used to tailor the purposes of zoning or other police power restraints to a specific site or to be more restrictive than general public requirements. While the agreements may be incorporated by the developer at the request of a public plat approval agency, the restrictions cannot be amended by public action as can zoning and subdivision regulations. Marion County in the Salem area uses this technique to prevent redivision of land in the absence of sewer and water facilities. Dade County negotiates various restrictions in lieu of a PUD ordinance. Houston is the most cited user of restrictive covenants.

Zoning Techniques

Zoning is probably the most commonly employed development control device. It normally is used to regulate the use of buildings and land, the area of a lot which may be developed, the density of development, and the height and bulk of buildings or other structures. Zoning is basically a device used to handle unacceptable side effects of individual development decisions. As such it seeks to segregate incompatible uses, resulting in separation of home from work and shopping. A growing use of performance standards may enable greater functional mixing. Traditionally zoning has been concerned with the location and use of land, leaving the timing of development to the owner. Recent development management techniques have combined zoning with capital programming, for example, to add a timing element.

14. *Conventional zoning* - This is included because it is so commonly used. All the case studies use variations of conventional zoning in combination with other devices as key elements of their systems.
15. *Conditional zoning* This variation of zoning obtains a promise from the property owner to limit development beyond that required by the codes, to dedicate land, or to make other concessions of public benefit in return for a rezoning. The governmental unit obtains a closer adherence to its public policies without making any commitment itself.
16. *Contract zoning* - This represents a commitment on the part of the local government to rezone in exchange for incorporation of deed restrictions by the property owner. (Both this and item 15, above, often have been voided by courts in the past. Recent history suggests more support for this type of tailoring of development to site or community needs.)
17. *Planned unit development* - This technique combines some of the attributes of zoning and subdivision regulations into one development ordinance. It substitutes required specific plans and process involving administrative discretion, for normal process and specified lot line approach found in standard zoning and subdivision regulations. The technique can be used as an incentive for better development by enabling complete schemes to be worked out and approved in a deliberative process. It also can be used to delay or prevent development by arbitrary discretion and vague criteria such that a developer finds it very difficult and time consuming to comply.
18. *Flexible (cluster, average density) zoning* - This variation in zoning allows an adjustment in the location and density of development on a site so long as the total number of units does not exceed a set number or density ratio. The technique is frequently used to enable the preservation of environmentally sensitive areas or to eliminate the need to develop portions of sites that, owing to slope, treecover, or other factors, might appropriately remain undeveloped.
19. *Performance standards* - This approach employs a set of standards relating to acceptable levels of nuisance or side effects of the development rather than specifying acceptable uses. For some time, performance standards have been used in industrial zoning to control noise, glare, and similar side effects or nuisance emissions from industrial activity. The performance standard approach more recently has been applied to demands for support services such as traffic, sewage, and the like. A further application is to meet environmental concerns by specifying maximum levels of stress to be imposed on natural resources by development. As in all zoning, the concern is with side effects (or in economic terms, externalities) that are not taken into account by regular market transactions. Performance standards are a means of specifying acceptable levels of external effect and letting the market determine use as opposed to specifying precise uses that would produce acceptable levels of external effect.
20. *Bonus and incentive* - This category includes an array of practices in which the community obtains certain features or amenities in a development by granting additional income-generating benefits to the developer. For example, additional open space or community facilities above the minimum required may be obtained by an allowable increase in density. More recent proposals have offered incentives for provision of low and moderate income housing. The developer determines the extent to which he wishes to provide the community benefits for the incentives specified.
21. *Floating* — The floating zone may be employed for a certain district--neighborhood shopping, for example – that is desired in a given area but for which the location is not desirably identified in advance. It is identified by text in the ordinance but not shown on the zoning map. If a property owner can meet set conditions in the zoning ordinance, the property will be rezoned.
22. *Special permit* -- The special permit may be used in those instances where, as with the floating zone, the specified activity is desirable but poses potential problems requiring special control. It is incumbent on drafters of the ordinance to specify all of the conditions that should be met by an applicant for a specific use. The special permit is frequently used in development management systems to provide the bridge between public and private investments as with an adequate public facilities ordinance.
23. *Variance* - This is a procedure for allowing a use to occur when the full array of requirements such as set backs cannot be met due to specific unique attributes or limitations of the parcel or site. The individual must be allowed a reasonable use of his land.

Subdivision Regulation: Conventional

24. *Subdivision -- Conventional* — This category is included because, next to zoning, it is the most commonly used development control device. Also, it is most readily used for timing or sequencing development when used in its newer forms, treated separately below (30-32). Conventional subdivision regulations are used to control the process of converting raw land into building sites. They provide the capability to ensure adequate public improvements; to enforce certain lot size, set back, and similar provisions in the zoning ordinances; to assure purchasers of developable, drained lots; and to enable the local government to coordinate the work of adjacent, separate developers.

Zoning/Building Code/Subdivision Regulation for Permanent Population Control

This list is set out separately because of the very direct restriction on development or population that may occur.

25. *Exclusive agricultural or non-residential* - Such single use zones exclude residential use and thus have a direct limiting effect on housing and population. Sacramento County employs exclusive agricultural zoning, but also has several agricultural classes allowing a range of intermixed residential density.

26. *Exclusion of multiple family, mobile, modular, or industrialized housing*–Such controls, for whatever purpose, have an obvious effect on population. This technique, as well as the previous one, is frequently pursued in the interest of protecting the exclusive use from real or potential adverse effects of other uses. It is the other end of the spectrum from performance standards identified above. Of the eleven case studies, only Ramapo identified such exclusions, and there it pertains to unincorporated areas.
27. *Minimum floor area*–This particular control has been frequently used in recent years as a means of guaranteeing a minimum size property and therefore maximum tax return for a community. Challenges on exclusionary grounds have occurred. Of the cases studied, only Dade County indicated use of this technique.
28. *Minimum lot size*–This device is used for a whole array of reasons. It is used with very large minimums to prevent urban development in rural areas. It is used to increase costs and therefore either deter development or encourage high value development. It is used to limit the number of people who can live in an area and therefore control the tax demand for services such as schools. It is also used in conjunction with soil and other data where on-site sewage disposal and water systems are planned to ensure that the resultant systems will be healthful. More recently it has been used on environmental grounds to restrain intensities of development incompatible with natural resources. Because of the wide array of reasons for use, many of which are justified in the public interest, there have been less successful challenges to this restriction than to minimum floor area.
29. *Height restriction*–This technique is used in certain instances to maintain an established character of development. It is also used, as is the lot size requirement, to limit the amount of activity that can occur on a site and thus to limit the demands that can be placed on support facilities or services.

Zoning or Subdivision Controls Relating to Adequacy of Off-Site Facilities

30. *Off-site adequacy of facilities*–This is one of the more recent techniques of controlling development. It is most frequently used in conjunction with programming of public capital investments in a circular sequence, which states that development will be permitted in locations where adequate services exist and services will be provided to areas that are timely for development. The variations come in determining how the facilities are to be provided. In many instances, to ensure against undue or arbitrary restraint, the developer is allowed to construct necessary facilities (as in Ramapo) or to provide cash as an alternative (as in Loudoun County) to enable the property to meet the adequacy requirement.

Exactions and Other Requirements

In the subdivision process, it is common practice generally held constitutional, to require dedication of money, land or improvements to meet the needs generated by new development as a condition of plat approval.

31. *Mandatory dedication of land or capital facilities*–This requirement, most commonly used in relation to park lands, has been extended by some to dedication of other support facilities such as sewers, water, roads, and even schools. The requirement is to provide facilities which are needed to support the housing proposed even though that need is not off-site. This is one of the many tools used in attempting to have new development fully pay for the totality of the service impact it creates or to hold down local taxes.
32. *Money in lieu of land or capital facilities*–This variation achieves the same purpose as (31) [above], but allows cash payment rather than dedication of space or facilities, enabling greater flexibility in the event that a good park site, for example, is not available on the land owned by the developer. In the event that the development site is too small to warrant the donation of an adequate size park, the money can be aggregated and an adequate size, properly located facility acquired. In certain instances (31) and (32) [above] have been combined with official mapping to ensure for the public that the dedications occur where they are most needed, and to provide assurance to the developer that his contributions are going to facilities supportive of his development.
33. *Low/moderate income housing requirement*–Given the difficulties of federal, state, and local funding for public housing or housing subsidy programs, this technique has seemed to many to solve the problem of making adequate provision for lower income citizens. It has the potential shortcoming of a great amount of scatter of low and moderate income housing although to an extent this is its purpose. The program also faces greater legal difficulty when made a condition of subdivision than when made possible by an incentive program (20) [above]. Success with such programs is relatively limited. The Boulder example is a case in point, but in this instance the requirement is part of a contractual agreement to annex or provide services. Montgomery County has the only ordinance-based requirement still in effect. Fairfax County had its requirement overturned in the courts, and the entire Petaluma system has been challenged and overturned.

Tax and Fee Systems

Tax and fee systems are normally set up to generate revenues alone. They have a significant effect on development, which can be turned to positive development control. Perhaps the most important tax system, not covered in this report, is the federal income tax. The incentives to investment – depreciation of buildings and capital gains from land conversion or land value increases – often work against desirable public objectives that development management systems are designed to achieve. The other tax and fee systems, however, can encourage sprawl or compact development. These systems, too, often are operating at cross-purposes with other development controls.

34. *Urban and rural service areas*–This technique distinguishes areas by the level of service they can be expected to receive and therefore the level of taxation to pay for these services. The rural service area distinction has the benefit of reducing tax burdens on farmlands. It is a system logically combined with other controls that specify where facilities will be available and where they will not, or areas to be developed and areas to be deferred.
35. *User and benefit fees*–This technique generally has been used solely to raise revenues; however, it can have a

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tends to be tied to the capital program in addition to the plan. While both Ramapo and Prince George's County cover long term development, they do it in short-term program-oriented phases.

Numerical Restraints or Quota Systems

This approach sets a number rather than an area as the growth limit. The four items listed reflect different degrees of public commitment to the number. Challenges to the first two categories of restraints have occurred.

45. *Total population charter provisions*–Boca Raton is an example of this provision in which a numerical limit or "cap" is established in number of housing units. The system is then designed to respond to this total number.
46. *Annual permit limits*–Again the distinction between the long term and the short term is a distinction between a plan response and a program response. The annual permit limits are used to process building permits in the case of Petaluma and Loudoun County.
47. *Population and employment targets*–Prince George's County uses these area target numbers, set by policy, as the basis for capital programming in each geographical area.
48. *"Fair share" allocations*–These allocations are determined at the metropolitan level as a basis for achieving metropolitan social objectives or to offset claims of exclusion or discrimination at the local level from locally operated control systems. There are a number of fair share allocation plans around the United States, most of which have been substantially undercut by the federal housing program terminations/impoundments. The Washington area is listed under this topic for its current study of allocating not only low moderate income housing but other uses that may be discriminated against. It is identified as inter-governmental because it would involve both metropolitan and local levels.

Other Planning and Management Techniques

49. *Planning moratoria and interim development controls*–Planning moratoria are not new, but they were not used extensively until the recent growth crunch. It is essential that any moratorium be set up appropriately and accompanied by interim development controls in order that orderly processing of acceptable and hardship cases can be handled while new policy and plans are being prepared. Dade County's moratoria are unique in that they are established for areas less than the full county.
50. *Environmental moratoria*–These are quite common in periods of rapid growth where the institutions for providing sewer service, in particular, have been unable to keep abreast. Environmental moratoria, to be effective, are necessarily tied to programming of facilities to solve the problem on which the moratoria are based, e.g. expansion of a sewage treatment plant.
51. *Administrative processing and delay*–There are two aspects to this topic. First is the general power available to a government to operate administratively in the interest of orderly government when legislative authority may be lacking. Second is the use of what is sometimes referred to as creative foot-dragging. This is using the administrative process to hold up projects even to the point of making them financially infeasible, and thus stopping them altogether.
52. *One stop permit*–This is the exact opposite of administrative delay. It is identified in the ALI "Model Land Development Code" as enabling the builder to make one-stop[and receive all] permits necessary from all local agencies and perhaps from all governmental levels.
53. *Environmental impact or assessment*–As used here, environmental impact statement refers to the statement under federal law, state law, or local ordinance required of the agency authorizing development and prepared in response to a project proposal by others. Environmental assessment refers to that statement prepared by an agency or firm as part of its project proposal. These statements affect development management in two ways – by limiting the environmental effects (and thus development type, intensity, and location) of the proposal, and by delays in processing.
54. *Cost/benefit analysis*–There is an increasing interest in cost benefit or similar analyses as a means of evaluating major development proposals. Unfortunately, many social and environmental considerations cannot be treated adequately in a dollar based cost benefit balance sheet. The Loudoun County zoning amendment provision contains elements of cost/benefit, cost/revenue, and impact analysis.
55. *Impact zoning*–This is a relatively new technique for analyzing the various impacts of public policy or development proposals. Conceptually there is no limit to what may be included. Early examples have incorporated the interaction of growth rate and magnitude, public facilities, community costs and revenues, and environmental impact.
56. *Land use intensity rating system*–This system, developed by FHA, provides guidelines for incorporation of specific elements in a development proposal based on the general location of the property, and facilities or like uses available in the vicinity. While relatively limited in scope at this time, the technique could be expanded.
57. *Information, education, monitoring, and technical assistance*–Development can be guided by improving the market with better "information." This may include such information as land values, available support services, and natural resource problems and opportunities. Public development decisions can be improved by timely information on consequences or impacts of project approval. Fairfax County is perfecting such a system. Salem has proposed both types of information use for development control in the Mid-Willamette Valley. Interest in "monitoring" is growing owing to the inability to predict the consequences of many development actions. Prince George's County incorporates two indicators in its system to ensure that basic social and fiscal

APPENDIX C

CITIZEN ADVISORY COMMITTEE RECOMMENDATIONS

A Citizens' Advisory Committee on the County Growth Policy was steered by members of the Planning Board and staff. Its recommendations, which were divided into the six elements of growth, and the parameters of timing, location, and cost, provide useful insight into the recommendations made by the staff in the Framework for Action report. The content of these two reports, along with a description of how the county perceives its policy model to manage growth, should provide a basis of understanding the county's existing attempts to develop a growth policy.

The Citizens' Advisory Committee Report makes the following recommendations for developing more effective management in regard to the parameters of location, timing, and cost.

LOCATION

1. The county should encourage its highest density and mixed use development around these selected transit stations, suitable for development and in major Central Business Districts. A major portion of the population growth occurring in the next ten years should be directed down-county.

2. In order to promote well planned development down-county, some interim capacity for sewage treatment must be allocated to this area.

3. Central Business Districts should be developed as intense office, commercial and residential centers, oriented around Metro stations. This development should be in keeping with recommendations of the Blue Ribbon Committee on Central Business Districts and Transit Station Areas and with sector plans.

4. Sector plans whould be approved and adopted as soon as possible to meet development pressures caused by metro stations. In general, land within TSA's should not be rezoned, pending actions of these plans.

5. Development should be encouraged with the sewer envelope along the 270-S corridor and restricted within the wedges. Future additions to the envelope should be confined within the planned corridor. Up-zoning applications, denied within the wedge areas, should not be submitted for five years.[1]

TIMING

1. The Planning Board should develop a county-wide staging program that pulls together all the methods at the county's disposal which can be used to manage and time growth.

2. The presence of adequate public facilities should be used as a requirement for growth, both in new development and in redevelopment of older neighborhoods. Objectives of the Adequate Public Facilities Ordinance should be extended to areas other than those required in new subdivisions.

3. Enactment of Development District legislation would permit needed assembly of land parcels, large enough to allow for an appropriate level of CBD development, where ownership of land is fragmented.

4. A staging policy should be incorporated in all master plan areas in a manner similar to that of the Germantown Plan.[2]

COST

1. As more sophisticated techniques become available, the decision making process for growth policy should include more detailed economic and fiscal analysis of alternatives and options, applied to master plans, sector plans, and other major development proposals.

2. The Capital Improvement Program should present its projects by planning areas.

3. In order of priority, Capital Improvement Program objectives should be to
   a. Fulfill current needs of existing stable areas.
   b. Acquire land and build necessary public facilities in CBD and TSA areas as part of a staged process.
   c. Extend services to new areas.[3]

The Citizens Advisory Board also made recommendations for each of the six aspects of growth.

PEOPLE

1) "The current 17,000 per year population growth trend, and at least two alternative target populations - one lower and one higher rate - should be analyzed by the Planning Board to ascertain their overall impact on the county."[4]

2) "The General Plan should be reviewed and reconsidered in light of the study of alternative population growth levels proposed above, the energy crisis, and the Metropolitan Washington Council of Government's (COG) reevaluation of the Year 2000 Plan."[5]

The committee went on to note that at this time they were not ready to recommend a specific population limit. Some form of growth management must necessarily develop from the existing planning process.

Major considerations noted as necessarily belonging in such a management program are the county's ability to meet housing and employment problems and its ability to finance a variety of public facilities. The government and the people must come to an agreement upon what the limits of both natural and man made environmental resources are.

JOBS

1. "In the short term the county should stimulate a broader range of employment opportunities by encouraging economically viable industry in planned growth corridors and centers, in accordance with a regional strategy, adopted master plans and the adequate public facilities ordinance."[6]

2. The county should attempt to adjust any significant imbalance between the number of present jobs available and the supply of housing for all types of employees. The Planning Board and County Council should consciously link new housing and employment centers in the early stages of planning.

3. The county should develop a comprehensive manpower policy to guide the location of employment generating activity, particularly that of the Federal government. In the absence of compelling reasons to the contrary, Federal Agencies located in Montgomery County should be made to conform to the county planning policies, as required by the Intergovernmental Relations Act of 1968.

SHELTER

The goal, recommended under shelter in the Citizens Advisory Report, noted that "Montgomery County shares a regional responsibility to provide a full range of housing choices for people with a wide variety of incomes, ages and life styles." [7]

Recommendations by the committee included:

1. "In each master plan, land should be designated for low income housing. These sites should be acquired to assure actual construction of housing."[8]

2. The county should adopt a usable mobile home ordinance.

3. The county should adopt policies to preserve and upgrade structurally sound housing in older neighborhoods. Existing lower cost housing should be maintained and older neighborhoods preserved.

4. The county must accept responsibility for balancing the number of jobs and the supply of housing available for people who fill those jobs.

5. The county should encourage a diversity of housing types, to alleviate the situation under which all but the highest income group lack a housing choice with respect to price, location, and certain amenities.

COMMUNITY

1. County agencies should provide and link public facilities and services, in a cohesive manner and on a sufficient scale to enhance and strengthen community identity. This goal is particularly applicable to those neighborhoods on the fringes of business districts and transit station areas.

2. "The county should establish neighborhood centers in all existing and future communities wherever it is possible to combine or coordinate use of facilities to prevent duplication."[9]

3. "The county should help to assume a balanced mixture of community services through carefully planned CBD's."[10]

4. "The county should support enactment of development district legislation by the Maryland General Assembly."[11] This legislation would permit county government to buy and assemble land parcels of scattered underdeveloped parcels, currently under diverse ownership. Without this capability, the present fragmented land ownership pattern may prevent the necessary development

envisioned to support transit ridership.

5. "The county should make available public funds for community initiated improvements of housing, public facilities, services, and other projects."[12]

The Citizen Advisory Report concluded, in the section on community, that county government should encourage early involvement of local communities in decisions about anticipated changes affecting them.

TRANSPORTATION

1. Financial aid to public transportation should be a top priority.

2. The county should provide an effective bus system which will serve as a feeder to all future metro stations.

3. The county should provide better cross-county transportation.

4. The county should provide safe bikeways and pedestrian pathways throughout the county.

5. The county should expedite construction of a segment of the outer beltway, between 70-S and I-95 in Maryland, as well as the proposed eastern and western arteries. These roads are essential to the county's total transportation system and to the county's ability to develop the corridor in accordance with the General Plan.

6. The county should attempt to separate local and through traffic by providing service roads or other internal traffic patterns to new and existing developments when feasible.[13]

NATURE

"Environmental protection must become a major consideration in all planning and land use decisions."[14]

"Land uses should be limited by 'holding capacity' determined by natural and public service constraints."[15]

1) Ecological systems should be used as constraints to any new growth and development and should be accommodated without upsetting the natural systems. These constraints can be modified by technical improvements. The report noted that water supply and consumption should be decreased in the short run and priorities for the long run should consist of cleaning up the Potomac Estuary.

Water quality. Water quality is controlled by federal, state, regional and local authorities. In Montgomery County, streams are affected by sewage treatment programs, agricultural activity, and storm water run off in urbanized areas. "The degree to which water quality is a valid measure of population carrying capacity and to which storm water affects water quality is the subject of an ongoing watershed study."[16]

A further consideration for future development should be the capacity of each watershed to handle storm water.

Sewers. Preference for sewer availability should be given down county. Currently, various locations are operating at or above capacity limits. In order to promote development, as recommended for the urban ring and 70-S corridor, treatment facilities must be included in the Ten Year Water and Sewerage Plan as soon as possible.

Air. "The county should determine the implications of the Federal Clean Air Act on land use and transportation and recognize these implications when planning for development."[17] Air pollution in the county stems largely from automobile emissions. The county is just beginning, however, to consider

air quality in its land use planning process.

2) "Upper Montgomery County wedge areas should be fully protected and preserved . . . in addition to and in place of the five acre rural zone as now known, several zones should be developed for the wedge area.

a. An agricultural district zone, which would include operating farms and land, which because of fertility should be kept in agricultural use.

b. A conservation zone which applies to areas of unique natural resources and features along stream values and slopes.

c. A rural community zone, which applies to existing rural communities, where redevelopment can only occur when initiated by the community.

d. A five-acre zone should be retained for the remainder of the wedges."[18]

3) "Development in CBD areas should be limited by environmental and other constraints, including adequacy of public facilities, road carrying capacity, sewer availability, provision for recreation and open space and by the uniqueness of each CBD."[19]

4) "The county should encourage the public and construction industry to accept solar energy as an energy conservation measure and as an alternative to traditional heating systems."[20]

5) "Major new mineral resources, such as gravel, sand and lumber should be identified and preserved, with appropriate buffer zone between them and surrounding land."[21]

FOOTNOTES

[1]The Citizens' Advisory Committee on County Growth Policy, Directions for Growth Policy in Montgomery County. (The Maryland National Capital Park and Planning Commission, August 1974)., p. 22.

[2]Ibid., p. 23.

[3]Ibid., p. 24.

[4]Ibid., p. 9

[5]Ibid.

[6]Ibid., p. 11.

[7]Ibid., p. 13.

[8]Ibid.

[9]Ibid., p. 15.

[10]Ibid., p. 16.

[11]Ibid.

[12]Ibid.

[13]Ibid., p. 17.

[14]Ibid., p. 19.

[15]Ibid.

[16]Ibid.

[17]Ibid., p. 20.

[18]Ibid.

[19]Ibid.

[20]Ibid.

[21]Ibid.

A CASE STUDY OF GROWTH MANAGEMENT PRACTICES (MONTGOMERY COUNTY, MARYLAND)

by

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AN ABSTRACT OF A MASTER'S THESIS

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Land use planning is the major means by which management of growth takes place at the local level of government. There are two sets of sources for discerning the present and emerging state of the art of managing growth through changes in land use. The first is a review of literature on developing local growth programs and policies in relation to the parameters of timing, location, and amount of growth. The second source is an actual case study of the attempt of Montgomery County, Maryland to formulate growth policies and a process for managing growth.

This county's effort to formulate growth management practices and policy by a "continuing process" approach is among the most highly advanced systems in the country. An organizational framework to manage growth is in operation, and the county has been successful in establishing a process by which to coordinate growth policies with other jurisdictions and within their own. Although opportunities for expanded growth management do exist, the county must still refine its devices for measuring the costs and benefits of growth to determine more precisely the amounts and timing of growth to be accommodated in the various areas defined by the General Plan and Growth Policy. Strengthening the system would consist primarily of the following.

1) More specific direction is needed in the County Growth Policy to guide the Capital Improvement Program, and the Ten Year Water and Sewerage Plan. Together these policies should formulate the basis of a County Staging Policy which has yet fully to emerge.

2) The amount and rate of growth to be encouraged in various portions of the county should be more firmly established as a matter of public policy.

3) More rigid development controls are needed. These would consist

primarily of more forceful sewerage allocation policies which would have the power to favor some geographical areas over others within the boundaries of the sewer envelope.

4) Stronger centralization of administrative authority to formulate growth management strategies should emanate from a newly created division within the Planning Commission, whose express function is to monitor and revise annually updates and improvements needed in the annual growth policy.

5) There exists a need in the county and in other localities for a greater utilization and development of techniques to measure the "costs" of growth. In Montgomery County there was an absence of fiscal impact assessment of development alternatives effects on the tax base. More thorough investigation of the social impacts of higher concentrations of developments on people should be ascertained and translated into a desirable quality of life.

6) The application of the Adequate Public Facilities Ordinance should be strengthened to include "ceiling lids" temporarily established for each planning area to coincide with the programming of capital improvements. Specifically determined levels of growth at each location should be enforced through a more precise determination of the adequacy of public facilities. This action might entail determination of the adequacy of public facilities by use of a "points" system similar to the one developed by Ramapo, New York.

7) The county should be more specific with respect to delimiting the time schedules of other agency facility schedules which have a significant effect on the development of growth policy.

The future of managed growth under our present system's view of property rights is discussed with some suggestions for future reform which

would entail a gradual abandonment of the status presently awarded to private property owners that instead should be allocated to society.

Actual control over the outcome of growth will not take place unless development potential, on any land in the community, results largely from the actions of society, not from the community rights traditionally associated with land ownership.