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FOREWORD

At the core of growth and development issues around the country are basic questions about where new development is to occur. This issue of growth is intricately tied to questions of property rights, infrastructure investment, and environmental protection. Where growth and development are issues, such questions are faced by local governments on a daily basis. Local governments have developed a variety of responses to them, but a common theme is one of defining suitable areas for growth. Approaches to defining such growth nodes can range from delineations of service areas or definitions of adequate public facilities to strictly defined urban growth boundaries. This publication will examine the use of growth boundaries as a growth management mechanism.

In Maryland, an increasingly powerful force behind this, and all other local governments' efforts to control growth, is the Economic Growth, Resource Protection, and Planning Act of 1992 (Planning Act). The Planning Act encodes the Visions as the State's official growth policy, which will guide the myriad of development actions in Maryland. Accordingly, the Planning Act requires that county and municipal plans be amended so that they include and implement this overall State policy guide. The first Vision states that "Development is concentrated in suitable areas."

A basic premise of the Planning Act is that it is a responsibility of local governments, through their comprehensive planning processes, to define those growth areas, whether by growth boundaries or other means.

This booklet is one of a series of Models and Guidelines published by the Maryland Office of Planning to help local jurisdictions meet the challenges and opportunities presented by the Planning Act. This booklet will outline the use of urban growth boundaries in Maryland and elsewhere. It also will detail those actions that must be taken to make growth boundaries successful.

An urban growth boundary is a line on a map used to mark the separation of rural land from land on which growth should be concentrated. The concept can be traced at least as far back as the 16th Century when England's Queen Elizabeth I decreed that no building could be constructed within three miles of London's city gates. This decree thus created a greenbelt between the City walls and new development.

In recent years, American planners have also used this centuries-old method of growth control. One intent, as in Elizabethan England, is to protect open space lands. Another perhaps more pressing goal is to reduce and contain urban sprawl. Because such boundaries frequently



represent a coordinated, interjurisdictional effort to determine where urban development can, and cannot go, they can serve as a valuable growth management tool.

For the purposes of this booklet an urban growth boundary is a line that is a specific and integral element of a comprehensive plan. Regardless of the method used to define the boundary, it differs from other techniques to define appropriate areas for growth because it is proactive. An urban growth boundary provides guidance to decision-makers regarding the location of urban services and infrastructure. In its strongest form it can be changed only through a formal amendment to a comprehensive plan. Such lines cannot be moved as the result of incremental changes to infrastructure service areas or boundaries.

“Urban Growth Boundaries” begins by examining how boundaries are used elsewhere in the United States. The booklet then focuses on the Maryland jurisdictions that use them. It contains an analysis of their strengths and weaknesses and how urban growth boundaries can be created and improved. To obtain information on boundaries in Maryland, the authors interviewed planners and other professional staff from Baltimore, Frederick, Howard, Montgomery and Washington counties. Planners from the cities of Frederick, Gaithersburg, Hagerstown and Rockville were also consulted. Comprehensive plans and other relevant documents from these jurisdictions also were examined as part of this study.

This booklet is organized in five parts.

- Part I examines the uses and successes of urban growth boundaries around the United States.
- Part II examines the rationale for establishing growth boundaries in Maryland. It discusses the methodology and criteria used to determine boundary locations. It then explains how new development within boundaries is administered and examines the success of boundaries in achieving their growth management goals.
- Part III contains a checklist of suggested items to consider when planning for, and drawing the urban growth boundary.
- Part IV provides guidance for actions to take and mechanisms to use, if boundaries are to be successful in managing growth.
- Part V explains how urban growth boundary language can be integrated into the comprehensive plan.

URBAN GROWTH BOUNDARIES IN OTHER STATES

It appears that the first application of the urban growth boundary concept in the United States was in Lexington, Kentucky during the 1950's. The idea gradually spread. By late 1992, growth boundaries were a part of statewide enabling legislation in six states. They also were used in a number of cities and counties across this country.

Some jurisdictions in these other states have far more complex and ambitious urban growth boundary programs than those in Maryland. As in Maryland, the boundaries in those states enclose urban growth areas which include both incorporated and unincorporated land. They designate where urban growth exists or is planned, and areas where it is discouraged.

Boundaries in these other states are established to accommodate growth over a particular period, generally 20 years. Accordingly, in developing boundaries, these jurisdictions make detailed calculations of land demands for the appropriate period. These states generally require periodic evaluations of their growth boundaries and adjustments to the lines as necessary.

Because the scope is generally interjurisdictional, a cooperative regional approach is used to make such boundaries successful.

Oregon

Oregon's 1973 Land Conservation and Development Act required all incorporated cities to designate growth boundaries. All have done so.

The Portland urban growth boundary, established in the late 1970's, encompasses numerous cities as well as unincorporated land. The cities adopt their own comprehensive plans. The counties' comprehensive plans cover the unincorporated land lying within the growth boundaries. Much of the day-to-day management within each boundary is conducted by the Metropolitan Service District, the nation's only elected regional government. The District approves the extension of public facilities and provides guidelines for adjusting the Portland boundary. The District also exerts some control over local zoning. For example, the District requires that city zoning allow as many as 10 units per acre on lands that will accommodate multifamily residential development.

The major purposes of Oregon's urban growth boundary program are to prevent sprawl and to protect agriculture and forestry: two of that state's leading economic sectors. An August, 1990 evaluation of Oregon's boundary program revealed that it had achieved some success. Rampant

sprawl outside the boundaries of the Portland metro area, for example, had been drastically reduced.

The study, focussing on land development between 1985 and 1989, found that in the Portland metropolitan area, only 9.0 percent of the single-family units, 0.5 percent of the multiple-family units and 1.2 percent of the new subdivision lots were outside the Portland urban growth boundary. No significant commercial or industrial development occurred outside.

However, the study of the Portland metro area urban growth boundary showed that 85 percent of residential subdivision lots that were approved outside of the boundary lay immediately adjacent to that line. This predominately low-density development would act as an impediment to moving the urban growth boundary outward. It also acts as a block to the successful future urbanization of these areas. There remains a great demand for such low-density residential development. There is difficulty in economically serving this large-lot development with infrastructure. Also, opposition to higher-density development inside the boundary has intensified. Barriers have developed to moving the line outward because strong interest groups, composed of local residents, oppose the line's extension.

While sprawl was slowed outside the boundary, it continued inside. Residential development within the Portland boundary between 1985 and 1989 was below allowable density. Single-family residential development in the Portland metropolitan area occurred at only 68 percent of allowable density. In the "urbanizable" portion of the boundary (defined in the local plan as land available and suitable for development once urban services are provided), single-family development densities were only 59 percent of that allowed. Multifamily development was at 73 percent of density allowed. To many observers, these "below-target" densities are also sprawl. Still, the development has occurred in an area slated for growth.

Infrastructure issues also exist. Vacant land in outlying areas within the boundary is easy to develop. However, it is hard to serve with infrastructure because costly urban services cannot keep up with the demand. Older urban areas, on the other hand, are easier to serve because the infrastructure is already in place. However, redevelopment is generally harder than new construction because of difficulties in assembling adequate land and higher land prices in more urbanized areas. There also are practical difficulties in construction when the surrounding properties are built up. Local opposition also can be an impediment to effective redevelopment.

Thurston County, Washington



The Portland urban growth boundary is considered a qualified success. As previously stated, it has drastically reduced sprawl in rural areas beyond it. Because growth is strongly encouraged within the boundaries, the approvals of developments there are predictable. This predictability shortens approval time and saves money for developers and homebuyers. The Portland urban growth boundary has widespread support because it has made growth more orderly and predictable.

Even though much growth is confined within the boundary, housing prices there have not risen dramatically as some predicted would occur. Part of the relatively low price rise results from the availability of major infrastructure for new development. Additionally, Oregon State has streamlined development reviews, making them more predictable and less time-consuming. A final contributing factor in the lack of a rapid price rise lies in the fact that there is vacant land available for new development plus ample infill and redevelopment opportunity within the growth boundary.

In the early 1980's, the Thurston Regional Planning Council, a County regional planning agency, developed an agreement among the County and three of its municipalities to establish an urban service area boundary. The purpose of the boundary was to concentrate urban development within planned growth areas, provide high-quality basic services at lowest cost, and encourage orderly growth consistent with rational provision of public services. The line would establish the outer limit of urban development, annexation and urban service extension.

A 1986 evaluation showed that a majority (60 percent) of new housing units were being built outside the three cities. Development within the boundary was occurring below desired densities, often in a sprawl pattern. In 1988, the four jurisdictions responded by creating a two-tiered boundary featuring short-and long-term growth areas and adopted an Urban Management Agreement to govern the responsibilities of each jurisdiction. To slow sprawl, they attempted to stage the extension of utilities gradually outward from the urbanized core. The short-term service area provides for growth over a ten-year period. The long-term area is slated for urban growth and services over an 11 to 25 year period.

Their voluntary agreement outlines a common approach to growth and the provision of public services and facilities. It also establishes standards to guide each jurisdiction's land use planning decisions in a way

Minneapolis and St. Paul, Minnesota

that will achieve common growth management goals while leaving the power with each jurisdiction to control its own land use. The agreement allows minimal extensions of municipal services beyond the short-term growth area. It also has established a joint land use planning process to implement the boundary. The jurisdictions jointly agree on zoning, densities and land uses in both the short-term and long-term areas. Some cities adopted a policy of reimbursing the County when annexing land on which the County had made a substantial capital improvements investment.

While extensive data are not yet available, it appears the boundary program is a success. There have been few requests for subdivision approvals in rural areas. Thurston County has supported the boundary program by downzoning land outside the long-term boundary for very low densities. Few utility extensions have gone beyond the short-term growth area portion of the boundary, and none beyond the long-term line.

This arrangement also is positive in terms of the intergovernmental cooperation that has occurred through strictly voluntary agreements. The previously-cited city/County land use and revenue sharing agreements are examples. In addition, the current agreement calls for mutual concurrence among the County and cities before revising the boundaries of the urban growth area.

The Metropolitan Land Planning Act of 1976 gave the Metropolitan Council limited planning authority over the Minneapolis/St. Paul metro area, a seven-county region covering 3,000 square miles and home to two million residents.

The Council uses plans for water and sewerage and other services to control the location of development. Jurisdictions in the metro area are required to prepare comprehensive plans that are consistent with the Council's regional plans for highways, transit, water and sewerage, housing, solid waste management and health. Council authority, however, extends only to those areas considered of regional significance.

The Council and area jurisdictions also developed the Metropolitan Urban Service Area (MUSA), where development would be encouraged in some areas and discouraged in others. Urban expansion in each city is negotiated with the Council in accordance with the regional comprehensive plan. Service extensions are granted by the Council on a city-by-city

Conclusion

basis, based on needs.

The MUSA and its associated policies have affected the pattern of development in the region. New development in the rural areas of the MUSA has declined dramatically since 1978, two years before the growth plan was implemented. The areas where urban services are provided have expanded in a manner consistent with guided growth. Major regional highways and sewerage facilities have expanded only within the urban area. Neighboring jurisdictions within the region are kept aware of each other's plans to a much higher degree than before the Act's passage. Finally, the importance and primacy of planning on a regional basis have been established.

There have been many, mostly minor, adjustments to the MUSA boundary line over the years. Some cities have petitioned the Council for major expansions into rural areas and rezoning requests are expected to follow.

These cities and counties had differing issues and problems that their respective urban growth boundaries were intended to address. Like Maryland, they experienced successes and failures. These jurisdictions have generally achieved their goal of limiting sprawl beyond their boundaries. However, low-density development and the bypassing of developable land parcels nevertheless occurred inside boundaries. There was also some pressure to extend development into rural areas.

Minnesota, Oregon and Washington also used the powers of regionalism to plan their growth boundaries and encourage their success. In Minnesota and Oregon, regional authorities have at least some statutory powers to provide overall direction, planning and coordination. In Washington's Thurston County, this regionalism is achieved through voluntary agreement. Regardless of the arrangement, the local jurisdictions in these states must plan and provide services within a coordinated and established regional framework. Local plans must be consistent with regional goals and policies.

While each state implements its urban growth boundary program in a different fashion, regional cooperation is a common element in all such programs. For an urban growth boundary to successfully control growth, it is imperative that the participating towns and counties develop cooperative planning, zoning, infrastructure and other mechanisms to stage and guide development. While Maryland does not have the formally-established regional organizations that are the conduit for interjurisdictional cooperation in States such as Minnesota and Oregon, our need for such cooperation is no less acute.

It is therefore important to examine how this all-important ingredient is integrated into Maryland jurisdictions' growth boundary programs and

GROWTH BOUNDARIES IN MARYLAND

The 1950's saw the beginning of a population explosion in Maryland that would more than double its population from 2,343,001 in 1950 to over five million in 1994.

Much of this population growth resulted in large-lot residential sprawl and supporting commercial development spreading out from the older built-up population centers into the countryside. This new development pattern consumed agricultural and environmentally-sensitive lands. The pattern also resulted in a loss of community character in what had formerly been rural settlements. Often it quickly overburdened the rural road network, schools and other public services that local jurisdictions had provided for these areas, forcing inefficient extensions of urban facilities.

Accelerating growth also increased development pressures on vacant land adjacent to municipalities. This led to ever-increasing municipal efforts to annex prime development parcels. Municipal expansions, however, often created conflicts with counties that envisioned different uses for the land.

These growth-associated problems forced jurisdictions in Maryland to adopt a variety of planning tools and other measures to control development. Urban growth boundaries were one of the measures chosen to encourage growth in selected areas. In the late 1960's, Baltimore County became the first Maryland jurisdiction to adopt such a boundary. Others followed over the next decade.

The form of growth boundary used depends on the type of problem or circumstance it is to address. In some instances, the boundary is simply an annexation limit line that represents agreement between town and county on what lands should ultimately be included in the municipality. The development anticipated on these parcels is most likely to be the more urban types of density/intensity that normally occur within municipal limits. Frederick City and Frederick County, along with Gaithersburg and Montgomery County, have such annexation limit lines. Properties are included within those lines because they are adjacent to the municipalities or because their annexation would eliminate irregularities in municipal boundaries. These properties also could be readily served by municipal water, sewerage and other infrastructure.

A more complex solution is required where sprawl development reaches far beyond municipal environs into the countryside. This type of pattern creates more widespread problems. It consumes extensive amounts of land. It overtaxes services or forces expensive and inefficient infrastruc-



ture extensions from either the town or county. It also endangers agricultural land and sensitive environmental features.

Growth boundary lines created under these circumstances are intended to do far more than simply designate parcels that should ultimately be annexed. This type of boundary delineates a larger area, often at least partially unincorporated, in which the county hopes to contain and attract dense or intense development. This type of boundary is generally created with the understanding that only very limited lower density development may occur beyond its limits.

More so than with simple municipal annexation limits lines, this type of urban growth boundary signifies a countywide effort to contain growth near towns or built-up areas. These more extensive growth boundaries appear in Baltimore, Frederick, Howard, Washington and Montgomery counties. They demand close coordination between municipal and county governments.

Baltimore County's urban growth boundary, known as the Urban-Rural Demarcation Line (URDL), includes all of the County's urbanized land around the City of Baltimore. The URDL also extends into some undeveloped areas where future growth is proposed. The primarily-agricultural and rural northern portion of the County is beyond the URDL. The URDL was put in place to protect these areas from development.

Frederick County has several boundaries. The largest area includes the City of Frederick, the area governed by its annexation limits line and nearby unincorporated land. Boundaries have also been adopted for Thurmont and Mount Airy, and for unincorporated growth areas such as Point of Rocks.

Howard County's Suburban-Rural Demarcation Line encloses its more-developed eastern part, including Columbia and Ellicott City.

Washington County has adopted a generalized urban growth boundary line covering its north central area, including Hagerstown, Funkstown and Williamsport. Smaller boundaries encompass Boonsboro and Smithsburg.

Developing the Boundary

Local governments in Maryland have established urban growth boundaries for a variety of reasons:

- To control residential sprawl.
- To provide a tool to defend against inappropriate rezonings in rural areas.
- To create rational municipal annexation limits.
- To control utility extensions into rural areas.
- To protect agricultural land.
- To concentrate growth in selected places.
- To let property owners know whether their land lies in a development or potential development area.
- To effect coordination between town and county concerning road paving and right-of-way widths, as well as locations of future transportation facilities.
- To augment the comprehensive plan as a tool for controlling development.

Urban growth boundaries in Maryland generally are not as sophisticated, or scientifically derived, as those in other states. Counties and municipalities around the United States often have used sophisticated procedures to determine exactly how much acreage to include within their growth boundary lines and exactly where the boundaries are drawn. These methods include detailed population and housing unit projections that are used to determine how much land would be needed in the future. Density targets often are established within the growth boundaries so that projected development will occur at high enough densities to be accommodated on the available acreage.

No Maryland jurisdiction has calculated an “optimal” land area within its urban growth boundary based solely on land demands created by projected future growth, nor assigned an overall density target. Howard county simply used its 20-year sewerage service area to establish its boundary. Baltimore County did much the same, while ensuring its

Impact Of Boundaries On Local Plans And Ordinances

Urban-Rural Demarcation Line encompassed all built-up areas. Frederick County's growth area boundary encompassing Frederick City, Walkersville, and portions of the surrounding County, is based partially on projections of population and dwelling units and resulting land demand calculations. In addition however, water and sewerage service area considerations also play a strong part. Washington County considered a variety of factors, including existing water and sewerage service areas, soils, farm ownership patterns, population holding capacity based on existing zoning and projected population. Nevertheless, the resulting boundary will accommodate far more population than is projected to settle there in the foreseeable future.

In Maryland, local governments used no special procedures or laws to officially adopt their growth boundaries. The boundaries were included as part of comprehensive plans and were adopted under the usual plan-adoption procedures.

While all boundaries are shown on the comprehensive plan maps for each jurisdiction which uses them, the amount and degree of reference to them in comprehensive plan texts varies widely. Most plans do not devote significant discussion to the importance of the boundaries in terms of growth management or their effects on specific areas of planning and development policy. Howard County does reference its growth boundary throughout its comprehensive plan.

Most local zoning and subdivision regulations have not been amended specifically to reflect growth boundaries. Baltimore County uses the Urban Rural Demarcation Line in its Chesapeake Bay Critical Areas program. Zoning provides the greatest amount of protection to those Critical Area lands lying outside the URDL.

The general policy in these jurisdictions is to separate the higher-density urban and suburban uses from the lower-density ones in rural areas. Zoning does not always support this goal. Howard and Washington counties, which lack agricultural zones that substantially limit development potential, are cases in point. The lack of zoning that effectively restricts growth in rural areas can result in a great deal of sprawl residential development beyond local boundaries. Howard County strove to focus development through its 1972 comprehensive plan's reduction in the 20-year planned water/sewer service area. The County also used its 1993 *Comprehensive Zoning Plan* to eliminate all rural, low-density zoning within the planned water/sewer area and substitute higher-density

Administering the Growth Boundary

residential or mixed-use classifications in its place.

Unlike local governments in some other states, Maryland jurisdictions have not established special agencies, bodies or organizations to administer development and growth within the boundaries. The evaluation, approval and monitoring of private development projects remain in the hands of the local government. Development reviews are generally treated in the same fashion inside and outside of the growth boundary. Few streamlining or other measures to alter development reviews for projects within urban growth boundaries have been implemented to encourage more development there.

In cases where both incorporated and unincorporated lands lie within the growth boundaries, no formal multi-jurisdictional bodies have been established to administer the development review process. However, in most cases there is frequent staff interaction, notification and information-sharing between cities and counties whose land lies within urban growth boundaries. In Frederick, Montgomery and Washington counties, municipal and county agencies exchange information on proposed subdivision plats and site plans, rezoning, variances and special exceptions and other actions. Agendas for upcoming planning commission, board of appeals and similar meetings also are shared.

Frederick County supports Frederick City's annexation limits line by referring potential developers of those parcels lying within that boundary, to the City. In this way, developers also receive information indicating that the subject property(ies) will ultimately be annexed. Builders are then able to plan their projects in accordance with City ordinances and other development guidelines which will govern them.

The only formal written urban growth boundary agreement is a Memorandum of Understanding (MOU) among Montgomery County, Gaithersburg and Rockville. This is essentially a general policy document, in which each signatory agrees to respect the interests of the others in broad areas of concern when making decisions concerning development within its own boundaries. The MOU appears at the end of this pamphlet.

Assessing Urban Growth Boundaries in Maryland

The counties using growth boundaries generally express satisfaction with the effectiveness of this tool in controlling growth. The lines have a major perceived advantage in their specificity. Local governments believe this clarity gives boundary lines major growth management

advantages over the more traditional and generalized comprehensive plan-identified growth areas. A boundary line:

- Clearly shows where growth should and should not go. This is a very important factor in Baltimore County where community groups are very much aware of the location of the Urban Rural Demarcation Line. There is a very strong local tradition of opposing proposed rezonings, extensions of public facilities or any other actions that would compromise the URDL's integrity.
- Provides specific limits beyond which water/sewerage, major thoroughfares and other public infrastructure should not be extended.
- Lets property owners know if their land will be developed at an urban, or rural use and density.
- Sets the limits of urban expansion, therefore giving a sense of permanence to agricultural areas. This encourages landowners to sell easements and enter agricultural districts.
- In the case of an annexation limits line, lets a property owner know which jurisdiction will ultimately make development decisions.

Boundary lines also help in some county efforts to revitalize older urban areas and encourage infill development on vacant parcels. This is because development beyond the urban growth boundary line is restricted. Developers must look harder for opportunities within the boundary. Thus, marginal properties or older urban areas receive closer scrutiny as development or redevelopment candidates than would be the case if more land were available beyond the line.

The effectiveness of urban growth boundaries in Maryland is also questioned:

- Because there are no optimal density goals established for urban growth boundary areas in Maryland, excess land beyond the needs of growth is always included. This ready availability of land presents many site options to potential developers. Within a boundary it also results in sprawl development or disjointed infrastructure extensions.
- Some counties with growth boundaries do not have a restrictive agricultural or conservation zone. Zoning then presents no disincentive to develop in rural areas, because there is no clear

difference between permissible densities on either side of the boundary.

- There also are problems when the urban growth boundary line includes both municipal and county land. In these instances, each jurisdiction involved often expressed the belief that the other acted alone, without considering its interests or advice. While each jurisdiction acknowledged that it was given an opportunity to comment on proposed developments elsewhere, each nevertheless expressed the belief that the other would do what it wanted, regardless of its neighbor's concerns.

METHODOLOGY USED IN CREATING THE URBAN GROWTH BOUNDARY

A variety of growth-related issues and problems confront State and local government in Maryland. Any one of these issues could prompt a jurisdiction to enact urban growth boundaries.

Perhaps all that is needed is for a town and county to agree on a line showing that town's maximum annexation limits. However, more complex issues created by sprawl development often require more complex interjurisdictional solutions. A line created under these conditions may delineate an area that includes both municipal land, nearby properties that are considered likely annexation prospects, and other acreage that is not a prime target for annexation but is still appropriate for development. Because development on those parcels affects a city or town even though that land won't be annexed, the municipality desires agreement with the county on a development pattern agreeable to both jurisdictions.

Within the urban growth boundary line, various densities of residential, commercial and industrial development appear. The more dense urban styles generally predominate. This development would be governed under a number of specific rules and regulations.

The reasons for creating the boundary, the density and use goals set for it, greatly affect the methodology that will be used to bring it to pass. This is true even though the common goal of all such growth boundaries is to identify growth and non-growth areas.

This section presents a comprehensive listing of the types of information that should be collected and analyzed when preparing to enact an urban growth boundary. It is intended as a guide only. A jurisdiction may conduct as much of this research as it deems necessary, depending on the complexity of the problems it seeks to address.

The Basic Steps

Regardless of the level of detail to be pursued, all local governments planning an urban growth boundary should follow certain basic steps:

- Identify problems and issues the boundary line must address.
- Establish a public participation process to generate support for the boundary.
- Determine specific goals for the boundary and its role in the jurisdiction's growth management efforts.

Identify Problems and Issues



- Gather and analyze data needed to determine the location of the boundary and the amount of acreage to be included within it.
- Draw the boundary.
- Prepare an appropriate public information program.
- Enact necessary interjurisdictional agreements.
- Amend the comprehensive plan, ordinances, and other implementation tools to reflect the urban growth boundary.

Before deciding on the type of urban growth boundary line it needs, the jurisdiction must first identify the development-related problems that the line would address. The following are typical:

- Difficulty reaching a city/county consensus concerning where, and in what direction, a municipality should grow.
- A development pattern that threatens agricultural land and other rural resources.
- Growth that overburdens public services.
- Development that forces illogical or inefficient extensions of public services.
- Prohibitively high taxes for infrastructure construction or maintenance, now or for future, if existing development trends continue.
- Development leaving unused service capacities in some areas while overburdening those elsewhere.
- Leapfrog, or sprawl development that bypasses significant amounts of developable land.
- Abandoned and deteriorating older urban areas as development moves outward.

Establish A Public Participation Process

Public participation is an important aspect of a comprehensive planning process. If the plan is not prepared with a process that builds consensus, the chances for approval or successful implementation are damaged. The urban growth boundary will be the most visible and understandable part of a comprehensive plan. A line having a direct impact on the character of an area should be drawn with the active participation of community members who will view themselves as either “winners” or “losers” when the line is approved.

A process for actively soliciting public participation and input should be a part of each of the remaining steps. It is especially important in two areas. First, in establishing goals, which will be part of any “visioning” efforts in the comprehensive planning process. Second, in drawing the line, which will build public support and help to identify any additional issues on the border of the growth area.

Determine Boundary Goals

After identifying issues and the problems of growth, the jurisdiction must determine how an urban growth boundary would help. The following are specific goals that could apply to a jurisdiction’s growth boundary:

- Promote compact development.
- Provide efficient, cost-effective infrastructure.
- Preserve natural resource lands and open space, including farmland.
- Prevent traffic congestion on rural roads.
- Retain identifiable edges of towns and maintain community character.
- Prevent sprawl by defining urban growth areas.
- Prohibit development that requires or encourages urbanization of lands that are unsuitable.
- Contain urban development in planned urban areas where basic services, such as water/sewerage, schools, police and fire protection can be efficiently and economically provided.

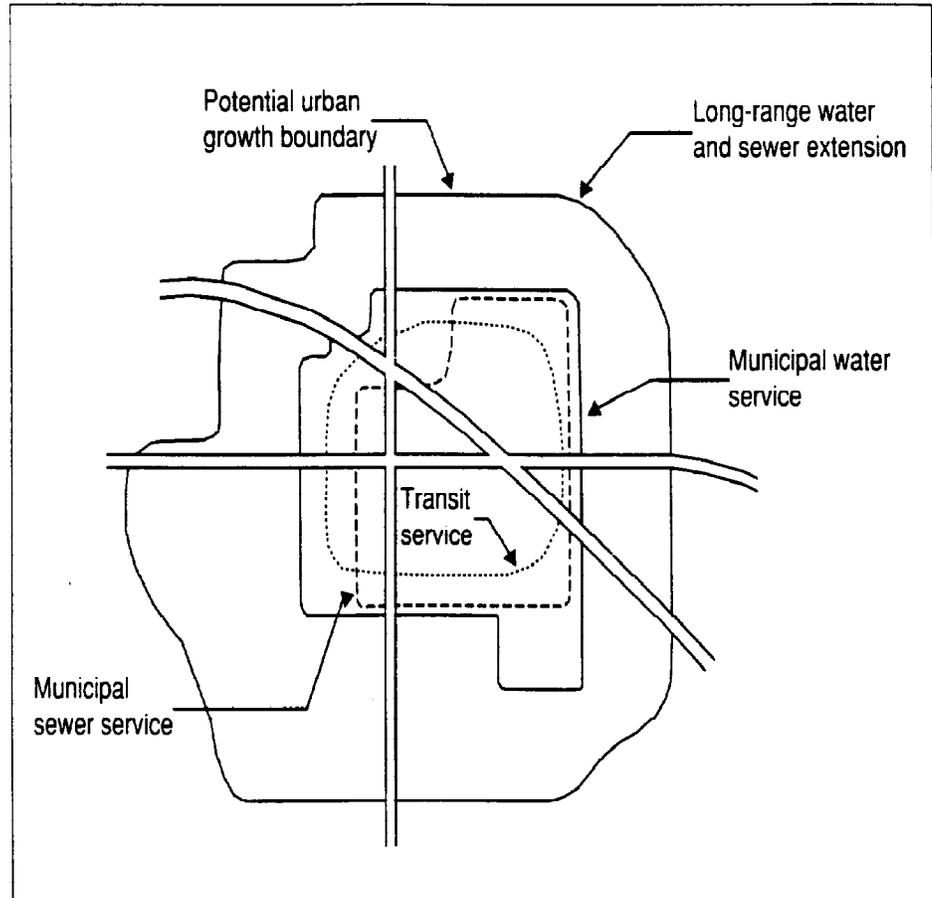
Collect Data

- Ensure the economical use of tax dollars in locating infrastructure and providing services for the benefit of all citizens within the urban growth area.
- Avoid tax increases for the purpose of financing duplicative or other inefficient infrastructure expansions.
- Provide property owners greater security in long-range planning and investments by delineating exactly where urban growth can, and cannot go.
- Protect the integrity and economic viability of central cities and other urbanized commercial areas.
- Promote rational funding of utility extensions, transportation facilities and schools, to match planned growth.

Before the urban growth boundary line can be drawn, the jurisdiction must thoroughly examine available information about the status of land use and development, infrastructure availability and regulatory considerations. This knowledge of existing conditions is needed to devise an adequate boundary and supporting programs.

A comprehensive data-collection effort is necessary for the geographic area that the boundary is likely to contain. Early public input is critical. The following is a list of information topics to consider:

- Examination of services (such as water/sewerage, schools, police and fire protection) provided to the affected area
 - facility locations
 - service areas of each facility
 - levels and capacities of services provided
 - plans for expansion or extension
 - adequacy of each service, present and future
 - condition of each facility



The growth boundaries can be derived by comparing the various maps of service areas and taking into account the desired level of service and available funding.

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- costs of service provision.
- Demographic data
 - current and projected population
 - existing housing units by type
 - projected housing needs by type based on existing trends and development scenarios

-
- economic and commercial development projections
 - Land use data
 - existing land uses, residential densities and nonresidential intensities
 - approved, but unbuilt or incomplete, developments, with proposed densities and intensities.
 - natural feature data and mapping, with emphasis on conditions that limit or prohibit development:
 - floodplains
 - steep slopes
 - endangered species habitats
 - watersheds, particularly areas to be left undeveloped or developed under constrained circumstances
 - water bodies, including streams and their buffers
 - prime agricultural land
 - geologic features
 - aquifer recharge areas
 - well fields
 - drainage basins
 - wetlands
 - forest lands
 - other natural areas

-
- historic sites
 - Local policies related to land use and development, including recommendations of comprehensive plans and other documents concerning:
 - annexation
 - proposed housing types and densities
 - redevelopment and infill
 - intergovernmental coordination.
 - Effects of local regulations and actions influencing the boundary and development within
 - existing zoning patterns within proposed boundary
 - effects of development pattern on uses, along with density and intensity of development
 - resulting holding capacity of vacant land
 - anticipated or proposed rezonings
 - relevant stipulations of subdivision and other ordinances, such as those governing dissimilar uses on adjacent lands, which affect the density, intensity and siting of development within the boundary
 - agricultural land preservation
 - existing and proposed resource protection programs such as flood control and standards for watershed protection
 - growth-control measures such as adequate public facilities ordinances
 - Market conditions affecting the sale of residential, commercial and industrial property.
 - Densities established by local jurisdiction actions and develop-

ment trends

- overall residential density goal set for the land lying within the boundary.
- existing density ranges and caps as established by local zoning.
- density achieved under existing development pattern.
- Existing density vis-a-vis infrastructure capacities.

Draw Boundary

Once this information has been collected and properly analyzed it becomes the basis for drawing the actual boundary. Of significant importance is the fact that this data gives the jurisdiction the ability to determine how much land will be needed within that line.

The boundary must encompass the existing urban area, plus the amount of acreage that will be needed to accommodate projected land requirements within that general growth area. Additional acreage may be needed to allow an array of alternate development sites sufficient to meet market needs. The following factors must be considered in determining the optimal size of the area to be included in the boundary:

- Projected population, commercial and industrial growth.
- Years of growth the boundary is expected to accommodate. Oregon, for example, scales its boundaries to accommodate 20 years projected population growth.
- Overall target density proposed for the land within the boundary.
- Amount of land needed to accommodate growth and supporting infrastructure given target density.
- Density limits established by existing zoning and density achieved under the existing development pattern.
- Proposed density vis-a-vis infrastructure capacities.

Once these factors have been properly analyzed, the line itself is drawn. While some acreage covered by environmentally-sensitive areas and appropriate protective buffers will undoubtedly fall within the boundary, this land must not be considered as part of that acreage needed to sup-

port anticipated development.

The entire developable area within the boundary and planned for development could be made available for immediate use. An alternate approach is to implement a phased development schedule within the boundary. One part would be available for immediate use, or development within a certain short-term time frame. The other portion can be held in reserve for development over the long term.

Prepare Public Information Program

The local jurisdiction should educate the public concerning the need for the urban growth boundary and its central role in the control of development. Comparison of infrastructure and other public costs under the existing development trend to those anticipated under the more controlled and compact development pattern created within the proposed boundary, provides a strong argument to support this action. It also is important to advise the public that there will be a clear method of determining whether an individual property lies within, or beyond the line.

Enact Interjurisdictional Agreements

All governments whose land falls within the urban growth boundary should concur on the problems the boundary is to address, and sign an agreement specifying their respective roles in addressing them. Jurisdictions with special districts that provide services within the boundary should also sign the agreement. This agreement should cover the means by which the signatories will interact in developing and revising the boundary. It should also clearly explain how the signatories will cooperate in coordinating planning, development approvals, provision of infrastructure and other public services and other measures to ensure the boundary's success as a growth management measure. The agreement should specifically include requirements for interjurisdictional circulation of information concerning proposed development, as well as meeting agenda, and draft amendments to comprehensive plans, zoning, and



Revise Plans and Ordinances

other development ordinances.

Once the urban growth boundary is enacted, each participating jurisdiction must make necessary amendments to its comprehensive plan. It must also carefully examine its zoning ordinance and other implementation mechanisms to determine where amendments are required. For example, the zoning map and/or text may have to be revised if the amount of zoned land within the growth boundary is insufficient to meet holding capacity and density goals established for that area. Revisions may be needed in water/sewerage, school or roads plans if the capacities of these services aren't sufficient to meet population and density/intensity targets as established by the proposed urban growth boundary.

MAKING URBAN GROWTH BOUNDARIES SUCCESSFUL IN MARYLAND

In many areas of the country, urban growth boundaries have proven useful in controlling development. By placing a well- defined line on a map, a jurisdiction clearly states where it wishes growth to occur.

A boundary line that adequately controls growth must be supported in a myriad of ways. This section identifies and discusses the characteristics a successful urban growth boundary must have, and the actions a jurisdiction must undertake to successfully meet the line's growth management goals.

The Jurisdiction Should Gain Public Support for the Line

The jurisdiction must gain public support for the line by demonstrating the need for it. Having the public as "watchdog" will keep pressure on local appointed and elected officials to preserve the integrity of the line.

The Line Should Encompass a Realistic Amount of Land Needed to Accommodate Anticipated Growth

If a growth boundary takes in too little land to accommodate the expected increases in population, there will be pressure for that growth to skip beyond the boundary into areas intended for rural use. On the other hand, a boundary drawn too large invites inefficient, sprawl development, with accompanying negative infrastructure and environmental impacts. To be effective, the boundary should encompass an amount of land equal to the projected population increase by a certain date, plus an additional amount of acreage to allow an acceptable range of individual choices. In other states, this latter figure usually amounts to an additional 20-25 percent beyond the amount of land physically needed to accommodate projected growth.

To determine land consumption, the jurisdiction must establish an overall target residential density for the land lying within its growth boundary. Residential zoning categories within the growth area should vary sufficiently to promote an appropriate mix of housing types. However, the jurisdiction should ensure that the overall density within this growth area is sufficient to support the economical placement of infrastructure, the provision of services and the efficient use of land.

The Line Should be an Integral Part of the Comprehensive Plan

As that line on the map which divides areas of growth and non-growth, the urban growth boundary may be the jurisdiction's strongest and clearest single growth management statement. For this reason, it must occupy a central place in the comprehensive plan's blueprint for future development.

The goals and objectives of the plan should articulate the need for the boundary and outline its pivotal role in influencing growth management decisions. The individual transportation and community facilities sections of the plan should guide the provision of these facilities vis-a-vis growth and non-growth areas as established by the boundary. The plan should identify how and where to avoid infrastructure investments that lead to unwanted development. The sensitive areas element should explain how environmental features will be protected within and beyond the development areas.

To ensure that the boundary will continue to reflect growth management needs over time, the plan also should require a periodic evaluation of the boundary to determine if it should be adjusted. However, adjustment should come only after proper analyses are conducted. Any adjustment should be reflected in, and be implemented by, an amendment to the plan itself.

As the basis for the jurisdiction's growth management programs, the plan should specify the target density for the growth area to be included within the urban growth boundary. It also should include and explain the population projections and land demand calculations used to establish the line.

The Line Should be Clear

An urban growth boundary should be clearly shown in the comprehensive plan in order to determine whether a particular property lies within, or beyond, the boundary. When confusion arises over the location of property vis-a-vis the boundary, there must be a specific process and criteria for resolving the issue.

The Zoning Ordinance Must Support the Boundary

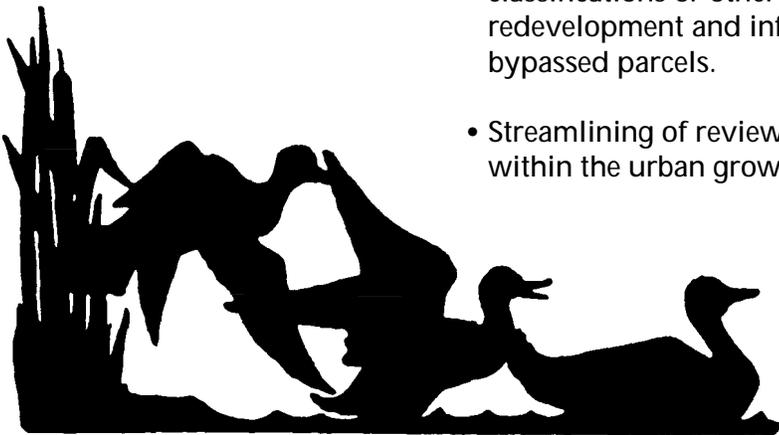
The zoning ordinance must limit development in areas lying beyond the growth boundary. This may be done by enacting restrictive agricultural or conservation zoning to prevent major subdivision and commercial development beyond the boundary, combined with techniques to attract growth to appropriate areas. These techniques can direct development to lands within the line where adequate supporting infrastructure is available. In some instances, this also may require downzoning land immediately beyond the boundary to restrict urban or suburban scale development that would be allowed under existing zoning.

Comprehensive rezoning can be a particularly strong tool for the creation of urban growth boundaries in this state. In Maryland, the reclassifications resulting from a comprehensive rezoning action have the legal

presumption of validity as long as proper analyses of land use preceded the rezonings. Growth boundaries resulting from such actions thus have the double advantage of being supported by appropriate land use study as well as the legal validity that results.

With the possible exception of rural settlements or villages that act as secondary growth nodes, dense or intense zones must be limited to land within the boundary to promote development there. Care must be taken even when allowing infill and other limited development within or around such rural concentrations. Clustering and requirements for consistency of new construction with existing development should be strongly encouraged in those areas to avoid sprawl and its attendant consumption of rural land. Two recent Maryland Office of Planning *Models and Guidelines* publications of interest to jurisdictions considering clustering and regulating rural development are: *Clustering for Resource Protection*, and *Modeling Future Development on the Design Characteristics of Maryland's Traditional Settlements*. Other measures to encourage development within growth boundaries are:

- Transferrable development rights ordinances that encourage farmland owners beyond the boundary to sell development rights to owners of developable land within it.
- Agricultural and environmental protection easements to forestall the conversion of developable land immediately beyond the boundary, thus reducing pressures to extend that line
- Incentives, such as reduction of lot-size requirements in certain instances, for those choosing to develop within the boundary.
- Flexibility within the zoning ordinance such as special zoning classifications or other measures to encourage and facilitate redevelopment and infill development of vacant, previously bypassed parcels.
- Streamlining of review to encourage appropriate developments within the urban growth boundary.



Public Services and Infrastructure Must Support Development Within the Boundary and be Minimal Elsewhere

Other than land itself, the availability of infrastructure is most essential to growth. Jurisdictions with growth area boundaries must provide sufficient water/sewerage, roads, schools and other public infrastructure and services to attract the level of population it wishes to locate within these boundaries. On the other hand, governments should provide only minimal infrastructure beyond the line to discourage development there.

A jurisdiction can use various mechanisms to create this differentiation of infrastructure availability:

- Prohibit water and sewerage extensions beyond the boundary unless needed to eliminate public health problems for which there are no alternatives.
- Stage utility extensions within the boundary, giving priority to areas presently served, before extending services.
- Limit capital improvements programs (schools, libraries, major roads and other infrastructure) to areas within the growth boundary.
- Create different specifications for sizing of roads, schools, and other infrastructure within and beyond boundary.
- Design utility lines that result in exhaustion of capacity when they reach the boundary, thus removing "temptation" to extend them beyond.

The consistency provisions of the Economic Growth, Resource Protection, and Planning Act contain specific language to support these actions. It states clearly that local governments may not approve construction projects involving the use of State funds unless the project is consistent with the comprehensive plan. A local project may be approved if there are extraordinary circumstances that warrant proceeding, and if no reasonably feasible alternative exists.

Interjurisdictional Coordination Must be Adequate

Interjurisdictional coordination and cooperation are vital for an urban growth boundary to be successful in controlling growth. First, all jurisdictions having land within the boundary should be involved in examining the issues, reviewing data and determining where the boundary will be drawn. The jurisdictions also must reach agreement on exactly what proposed plats, site plans, rezonings and other development-related

information they will refer to each other for review and comment. These materials must then be referred in a timely fashion.

Each involved jurisdiction must make every attempt to accommodate the others' concerns over a proposed development. Additionally, each jurisdiction must be continually aware of those developments that lie in its own territory, but would affect the public services of another. To this end, a government should seek out the input of the other affected jurisdictions when such developments are proposed, and work cooperatively to resolve disagreements and other problems before they arise.

Counties whose land borders a city that has enacted a maximum expansion limits line have an additional special interjurisdictional coordination role. They should advise prospective developers of the lands lying within the expansion limits line that those properties will probably be annexed and then developed under the city's zoning and other regulations and ordinances. County staff also should advise developers to meet with the city as soon as possible to learn of its development requirements.

A county which establishes an urban growth boundary line should be sensitive to the fact that the higher level of development within that line could significantly affect adjacent jurisdictions or be affected by development actions there. For this reason it should also effect notification and other coordinative measures, as necessary, with those adjacent counties and municipalities.

The Line Should be Periodically Updated

The local jurisdiction should periodically examine its urban growth boundary and determine if it should be adjusted. The most appropriate time to do this is when it updates its comprehensive plan.

THE URBAN GROWTH BOUNDARY AND THE COMPREHENSIVE PLAN

The urban growth boundary is created to clearly delineate areas of growth and areas for resource protection. As a definitive line on the map, the boundary is a local government's strongest growth management statement. For this reason, the boundary must occupy a central place in the comprehensive plan.

The urban growth boundary should be prominently addressed in the land use goals and objectives that outline the plan's broad direction. A jurisdiction that enacts an urban growth boundary may include it as an objective subordinate to a more generalized land use goal.

- **Goal:**
Encourage development and economic growth in areas designated for growth in the plan and protect agricultural and other rural lands.
- **Objective:**
Enact an urban growth boundary that includes those areas that are presently developed and those where such development is scheduled in the future.

Or, the enactment of the urban growth boundary could be a goal in its own right with supporting objectives.

- **Goal:**
Enact an urban growth boundary to designate areas where growth and economic development should occur.
- **Objectives:**
Include all areas reserved for suburban- and urban-scale residential densities and commercial/industrial intensities within the boundary.

Amend ordinances, regulations and procedures as necessary so that they reflect the priorities and intent of the urban growth boundary.

Develop and enact programs and strategies that support the urban growth boundary and the target density established for residential development within the boundary.

Develop and implement programs and strategies that support the urban growth boundary and direct development away from rural resource areas.

Periodically examine the urban growth boundary along with its supporting programs and strategies. Determine if ongoing development trends dictate a change in the boundary, and amend the comprehensive plan whenever the boundary line is changed. Determine if changes in ordinances or other implementing mechanisms are necessary to advance the goals of the urban growth boundary.

Because the placement of infrastructure is central to the effectiveness of the urban growth boundary, the boundary also should be addressed in the community facilities goals and objectives.

• **Goal:**

Provide public facilities and infrastructure in a manner that supports the urban growth boundary's delineation of growth areas.

• **Objectives:**

Use capital programming, water/sewerage planning and other means to provide for adequate services and infrastructure within the boundary in order to serve projected growth.

Use these tools to limit public services in areas beyond the urban growth boundary that are to remain rural/agricultural in use.

Develop specialized standards for roads, schools and other public facilities that serve the population in non-growth areas.

The goals and objectives of the sensitive areas element also should reflect the growth boundary.

• **Goal:**

Protect sensitive environmental features within the urban growth boundary.

• **Objectives:**

On watersheds lying within the urban growth boundary, determine which portions of each watershed should be excluded entirely from development and which can be developed given proper management procedures.

Develop within the boundary in a pattern that will present the least amount of runoff threat to water quality.

Adopt flexible and innovative regulations that facilitate development within the boundary in a manner that achieves density targets and protects sensitive areas.



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Other sources of information were:

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- Washington County Planning Department, *Washington County, Maryland Comprehensive Plan Status Report*, 1991
- V. Gail Easley, AICP, *Planning Advisory Service Report 440, Staying Inside the Lines: Urban Growth Boundaries*, 1992
- Governor's Office of Planning and Research and Governor's Interagency Council on Growth Management, *Urban Growth Boundaries*, Sacramento, California, 1991

APPENDIX:

MEMORANDUM OF UNDERSTANDING BETWEEN MONTGOMERY COUNTY AND THE CITIES OF ROCKVILLE AND GAITHERSBURG

The following is the full text of the Memorandum of Understanding about Urban Growth Areas that was signed by the Montgomery County Executive and the Mayors of Rockville and Gaithersburg. This document was signed on July 23, 1992.

All parties to this Memorandum of Understanding share the conviction that the area's quality of life is dependent upon the maintenance of economic vitality. It is the economic base that helps provide the resources to support the services which make living in this area so attractive.

In order for Rockville, Gaithersburg, and Montgomery County to continue the quality of life people have to come to expect, it is essential that all jurisdictions support well-managed economic development and housing initiatives which will be mutually advantageous to all parties, and agree to the goals and principles of the General Plan.

Therefore, the Montgomery County Executive and the County Council of Montgomery County, sitting as the District Council, the Mayor and Council of the City of Rockville, and the Mayor and Council of the City of Gaithersburg agree to the following:

1. The City Councils, the County Council, and the Executive agree to work cooperatively to determine logical urban growth areas and to established boundaries which will serve as guidelines for a twenty-year planning horizon regarding:
 - 1) Land use and required community facilities,
 - 2) Capital investment responsibilities, and
 - 3) Logical and efficient operating service areas.
2. Montgomery County will base its position of support on annexations upon the above three considerations and the designation of logical urban growth areas by Rockville and Gaithersburg. The Cities and the County will develop procedural guidelines for handling annexation agreements.
3. Rockville and Gaithersburg recognize the County's goal of requiring adequate public facilities in order to assure managed growth and acknowledge their accountability for the cooperative achievement of such goals. Within its boundaries each City will, however, assume responsibility for and determine how those goals should be measured

and attained. It is the mutual intent of all parties that project funding and staging will relate to the timing of public facility availability and to that end will consult with each other as necessary to assure attainment of desired goals.

4. The County recognizes the ability of the two Cities to develop and implement public interest solutions to growth management concerns. City or County development plans for land located within the urban growth areas and on adjacent areas should seek to achieve the land use, transportation, and staging objectives of each of the affected jurisdictions, as defined in duly Approved and Adopted master, Sector, or Neighborhood Plans. Every effort should be made by all parties to reconcile any differences in those objectives.
5. The City Councils, the County Council, the Executive, and the Montgomery County Planning Board agree to work on a cooperative basis in the development of plans and programs, including development districts, that affect parcels within the urban growth areas. Changes in land uses, staging, or zoning proposals for parcels within the urban growth areas will only be undertaken after the participation and consultation of the other parties. Any land annexed by either Gaithersburg or Rockville should included a staging component in the annexation agreement.
6. Rockville and Gaithersburg endorse the R & D Village concept outline in the Shady Grove Study Area Adopted Plan as being in the best interest of both Cities and the County.
7. Rockville and Gaithersburg recognize the importance of creative development initiatives such as Moderately Priced Dwelling Units (MPDU) and Transferable Development Right (TDR). The Cities will continue to utilize these and other appropriate innovative concepts to further the common development goals for the area.
8. The Cities will cooperate in a master traffic control plan and transportation (including transit) system for the County.
9. The principles contained within this Memorandum are meant to apply to all future actions pertaining to land in the Cities or on or near the Cities' borders.
10. We recognize the importance of moving ahead on an early basis to establish a schedule of action and agree to meet frequently on these important issues.

OTHER PUBLICATIONS AVAILABLE

The Maryland Office of Planning's Series: Managing Maryland's Growth

Models and Guidelines

Procedures for Review of Local Construction Projects;
Review Checklist, Compliance Schedule, Work Program
#92-13

Procedures for State Project Review Under the Planning Act of 1992
#93-02

Preparing a Sensitive Areas Element for the Comprehensive Plan
#93-04

Regulatory Streamlining
#94-02

Achieving "Consistency" Under the Planning Act of 1992
#94-03

Interjurisdictional Coordination
#94-04

Modeling Future Development on the Design Characteristics of
Maryland's Traditional Settlements
#94-05

Clustering for Resource Protection
#94-10

Transferable Development Rights
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Overlay Zones
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Achieving Environmentally Sensitive Design
#95-06

Other Planning Act of 1992 Resource Publications

What You Need to Know About the Planning Act of 1992
#92-07

Economic Growth, Resource Protection, and Planning Commission --
A Membership Guide
#93-07

What is Being Done to Manage Maryland's Growth? (*Brochure*)

Publications may be ordered from the Maryland Office of Planning, 301 West Preston Street, Room 1101, Baltimore, Maryland 21201-2365. Cost is \$2.00 each. (*There is no charge for the Brochure.*)

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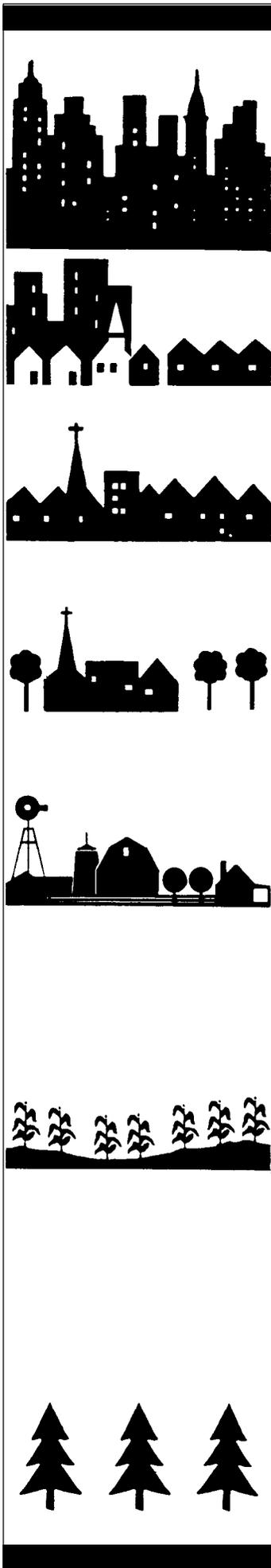


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