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Growth Management Approaches and Techniques

The United States traditionally has relied to an extraordinary extent on spontaneous economic forces (the "free market system" or "free enterprise") to develop the places in which we live and work. The right of private individuals to own and determine how they will use real estate is a cherished and constitutionally protected tradition. But the public sector always has been a strong force in establishing the rules of the development game and even in participating in the development process. Governments provide the legal framework for land ownership and contractual understandings. They support development by planning and securing funding for underlying infrastructure and major capital facilities that stimulate development, an activity described in detail in Chapter 6. Governments also prescribe standards for development and regulate the character and location of development. At times, governments participate in joint ventures to obtain development that meets public objectives.

The roles of the public sector as regulator of private development and participant in selected projects are constantly evolving. At one time, governments played relatively passive roles in land development. More recently, some local governments have imposed limits on development in response to voters' wishes to slow or even stop growth. Environmentalists and other interest groups have pressed for more rigorous standards and complex requirements to protect specific areas, natural features, and buildings. Neighborhood residents have succeeded in obtaining special zoning protection against new developments in their vicinity.

Many local governments, constrained by limitations on powers of taxation and changing attitudes toward development, have shifted much of the burden of financing development-related infrastructure to the private sector.

Today, the development process functions within a complex array of public policies, regulations, restrictions, and incentives, all of which are continually evolving in response to changing public goals and responsibilities. This chapter examines the roles of government in managing community development and describes the chief approaches and techniques currently in use in community growth management programs.

The Public Sector as Regulator of Community Development

In ancient times, governments founded cities and towns—historically in colonies recently subjugated—and took responsibility for their layout and construction of major public buildings, often populating them with new residents. In Colonial America, great landowners such as William Penn and James Oglethorpe borrowed many of the ancient ideas of town building—a gridiron street pattern, systems of open spaces, highly visible civic buildings—in designing their new towns. The difference was their status as landowners and as developers and speculators. From that time onward, communities in the United States were developed as private ventures. The Revolution helped the process by abolishing many of the feudal public claims on land ownership; soon thereafter, the Ordinance of 1785 established the rectangular survey system that allowed speculators to identify and trade in land they never saw.[1]

Governments' roles in community development consisted mostly of municipalities assisting the private development process: establishing and maintaining land records to protect ownership; building and managing basic facilities such as roads, prisons, schools, water and sewer systems; donating land to lure new industries for economic development. The City Beautiful movement initiated by the Columbian Exposition of 1893 helped inspire cities to build imposing civic edifices and parks and to create wide boulevards that increased values of adjoining private lands.

The first two decades of the 1900s saw the first stirrings of greater municipal involvement in guiding community development. Stimulated by concepts of the "City Beautiful" and motivated by concerns over teeming slums in the major cities, civic reformers called for establishing housing and building standards and for more attention to the quality of civic spaces, such as roads and parks. Committees of leading citizens commissioned well-known civic designers to provide plans for future development of their up-and-coming cities. In 1916, New York City adopted the first comprehensive zoning law to regulate land use as well as building characteristics. Municipal zoning quickly spread across the nation, opening the door to increasing public regulation of development.

The Regulators

Local governments in the United States possess the most direct powers to regulate development. Although most of the 19,000 municipalities and 3100 counties existing throughout the nation are too small or lack authority to enact development regulations, many local jurisdictions actively guide development through adoption of official policies and regulations. Certainly, most cities over 25,000 population and many suburban jurisdictions and small towns with smaller populations guide community development. Townships in some states and counties in other states also regulate development. (Many other states deliberately limit county governmental powers to certain rurally oriented duties such as highway maintenance and social services.) And in some states, several cities and counties have combined to jointly regulate development.

Thus, thousands of local governments are engaged in governing the development process. In a typical metropolitan area, development patterns and characteristics may be regulated by dozens of municipalities and some counties. Regional agencies have been formed in metropolitan areas to coordinate local efforts, but rarely do they posess enough power to truly affect the course of development.

State and federal agencies also regulate development, although not in the same manner as local governments. State laws and regulations may require special permits for drilling wells or installing septic tanks in rural areas, or for opening access from a property to a state highway, or for developing certain types of facilities, such as airports and hazardous waste dumps. States often adopt building codes as guides for codes of local jurisdictions. Both state and federal environmental laws require permits for development that affects wetlands, habitat of endangered or threatened species, and water quality. Development that directly affects state or federal lands and facilities may require special evaluations and/or permits. As described in Chapter 8, nine states have adopted state growth management acts with additional requirements for local governments and property owners to abide by.

Thus regulation of development is a multilayered and complex process that can create substantial obstacles to development. Regulation of the development process encompasses a host of laws and ordinances en-

acted at federal, state, and local levels of government. For almost 80 years these laws and ordinances have been tested in the courts, creating a large body of case law that continues to evolve.

The Legal Foundation for Public Regulations

State and local governments' regulation of land development is based on the police power—the right and obligation granted to states by the Tenth Amendment to the Constitution—to protect the health, safety, and general welfare of citizens. Oddly, the police power is not a constitutional power of the federal government except in cases of interstate commerce, land in federal ownership, and private land subject to major federal public works, such as dams and irrigation systems. Rather, the police power is reserved for the states, which usually elect to delegate that authority to local governments for purposes of guiding land development.

Most states enacted enabling legislation in the 1920s and 1930s that gave local governments the authority to regulate real estate development through use of the police power. Since then, local officials have become accustomed to thinking of these regulatory powers as theirs by right. They believe that regulations affecting the growth and character of their communities should be determined and administered by local governments that are closest to the people and the land most affected. Increasingly, however, states are moving to reassert a role in managing the development process through state growth management acts. A reminder of state prerogatives in land use control occurred in Fairfax County, Virginia in 1990, when the state legislature threatened to rescind the county's downzoning of industrially zoned land.

Courts recognize the right of local governments to exercise the police power, but they also are concerned with safeguarding private property rights. The history of land use law in the United States describes the working out of an uneasy—and continuously evolving—balance between the rights of local governments to protect the public's health, safety, and general welfare and the rights of individuals to unfettered enjoyment of private property. That balance has shifted as the courts have expanded their interpretations of "health, safety, and general welfare" to include aesthetic and other concerns.

The courts also allow local governments wide latitude in adopting legislation under the police power. Under the doctrine of "legislative presumption of validity," the courts give great deference to regulations that are properly enacted by local governments, generally holding them valid

unless clearly proven otherwise. Local governments' use of the police power therefore has grown considerably in scope and application.

Two early court cases, *Welch* v. *Swasey* in 1909 and *Hadacheck* v. *Sebastian* in 1915, established the right of local governments to regulate development. A major judicial step supporting regulation of the police power occurred in 1926, when the U.S. Supreme Court, in *Euclid* v. *Ambler Realty*, upheld zoning as a valid form of regulation. Through countless court decisions since then, the courts consistently upheld the right of local governments to regulate land use and development so long as they established a legitimate public interest for the action and followed due process in adopting and administering it.

Under the police power, governments may severely limit private property owners' rights to use of their property. In appropriate circumstances, governments may legally curtail or prohibit development to preserve such natural features as floodplains, wetlands, sand dunes, and habitats of endangered species, and may restrict the amount or height of development to protect erodible hillsides, mountain views, access to beaches, solar access, and other public interests.

Courts, however, have established legal constraints on rights to use the police power. The extent to which regulations can restrict the use of land remains an open and controversial legal question. If regulations are too restrictive, they can be defined as a "taking" of private property, which governments cannot do without compensating the property owners.

Four famous U.S. Supreme Court decisions sounded warning notes about overly expansive use of the police power. In a 1987 court case, *Nollan* v. *California Coastal Commission*, the Court ruled that the Commission had not established an appropriate connection between a regulation and the public interest when it required property-owner Patrick Nollan to allow public access along his beach frontage, citing as a reason the goal of providing public views of the ocean. The Court indicated that, in cases of this type, it would more closely scrutinize governmental actions to ensure that regulations were properly related to public purposes. In the same year in *First English Evangelical Lutheran Church of Glendale* v. *County of Los Angeles*, the Court ruled that if regulations are found to take property, the public authority may be required to compensate the owner. (In this case a state court later determined that the regulations, which prevented rebuilding of structures destroyed by a flood in a floodplain, were not a taking.)

In 1992, in *Lucas* v. *South Carolina Coastal Council*, the U.S. Supreme Court held that a taking had occurred and damages were due because the Council's regulations against beachfront development deprived Lucas of all use of his two lots on the ocean. These decisions suggest that governments' regulation of development must follow strict

Some Important Land Use Cases

Douglas R. Porter

Welch v. *Swasey,* 214 U.S. 91 (1909). The U.S. Supreme Court upheld Boston's height restrictions within districts.

Hadacheck v. *Sebastian,* 239 U.S. 394 (1915). The U.S. Supreme Court upheld a city ordinance prohibiting the continuance of brick manufacturing within designated areas as a nuisance to nearby residents as a proper exercise of the police power.

Village of Euclid, Ohio v. *Ambler Realty Co.,* 272 U.S. 365 (1926). This was the first U.S. Supreme Court case to uphold zoning as a valid form of regulation of the police power.

Golden v. *The Planning Board of the Town of Ramapo,* 285 N.W. 2d 291 (N.Y. 1972). This case is one of the first and most important cases upholding regulations for timing, phasing, and quotas in development generally and in Ramapo specifically, making development permits contingent on the availability of adequate public facilities.

Southern Burlington County NAACP v. *Mt. Laurel Township,* 336 A. 2d 713 (N.J. 1975) and 456 A. 2d 390 (N.J. 1983). In these two cases, the state court ruled that Mt. Laurel Township and other New Jersey municipalities must provide for development of a fair share of lower-cost housing and impose court oversight of the process.

Avco Community Builders, Inc. v. *South Coastal Regional Commission,* 132 Cal. Rptr. 386, 553 P. 2d 546 (1976). The California Supreme Court held that Avco did not have vested rights to develop despite having secured local approvals and made expenditures of over $2 million. The decision led directly to the state development agreements act.

Penn Central Transportation Co. v. *New York City,* 438 U.S. 104 (1978). The U.S. Supreme Court upheld New York City's imposition of landmark status on Grand Central Station, thus preventing construction of an office building over the station, as a justifiable regulation that required no compensation.

Kaiser Aetna v. *United States,* 444 U.S. 164 (1979). The U.S. Supreme Court upheld the owners of a private lagoon in their claim that a taking had occurred when they were forced to allow public use of the lagoon.

Agins v. *City of Tiburon,* 447 U.S. 255 (1980). This case was one of a series in which the U.S. Supreme Court held that the cases were not "ripe" for a decision, usually meaning that the plaintiffs had not exhausted the administrative procedures that might have resolved their complaint before going to court.

Nollan v. *California Coastal Commission,* 483 U.S. 825 (1987). The U.S. Supreme Court ruled that the California Coastal Commission had not established an appropriate connection between a requirement for an exaction and the cited public objective for the exaction.

First English Evangelical Lutheran Church of Glendale v. *The County of Los Angeles,* 482 U.S. 304 (1987). This decision was the first by the U.S. Supreme Court that a regulatory taking of property can require compensation to the owner, even if the regulation has only a temporary effect.

Lucas v. *South Carolina Coast Council,* 112 S. Ct. 2886 (1992). The U.S. Supreme Court ruled that damages are due in the relatively rare situations in which a governmental entity deprives a landowner of "all economically beneficial uses" of the land.

Dolan v. *City of Tigard,* 114 S. Ct. 2309 (1994). The U.S. Supreme Court ruled that the government has the burden of justifying permit conditions that require dedication of property without compensating the owner.

rules, with due caution for rights of private property owners. The Court's 1994 decision in *Dolan* v. *City of Tigard* determined that the government has the burden of justifying requirements for dedication of property for which the owner is not compensated.

The other, more widely applied, brake on governments' use of the police power is public opinion, expressed through political means. Many U.S. citizens own property and place great store on their rights to use it. It is not surprising, therefore, that local public officials, when deciding to regulate land use and development, usually attempt to allow property owners a reasonable economic use of their property. In writing and administering zoning regulations, for example, city councils and public administrators take care to allow property owners fair use of their property and provide for special treatment of hardships. Attitudes of public officials on this question vary considerably from state to state, affected to some extent by past and present pressures for development, fiscal discipline, and environmental protection. Regulatory restrictions considered reasonable for Californians might be anathema for Virginians.

Thus, local governments have a great deal of latitude in determining how to regulate development. State enabling legislation provides a starting point and court decisions erect a legal framework, but final decisions often depend on the attitudes and political positions of the public officials making them.

The Property Rights Issue

Erik Meyers

Few topics ignite such deeply held and poorly informed views as the current conflict between property rights and development regulation, especially regulation for environmental protection. Many development interests and some landowners denounce environmental and land use regulation as an unwarranted, illegal, or unconstitutional intrusion of their "property rights." They assert the right to use private land unfettered by concerns of society and seek compensation for even temporary restrictions. A similarly extreme view at the opposite end of the spectrum is raised by some public officials and environmental and civic activists, who claim that protection of a community's right to a clean environment should always trump a private interest in land.

Perhaps at no time has the pace of change in the United States been as dramatic as it has since World War II. Individual liberties and civil rights have experienced near-revolutionary change. Protection of the environment has moved from being a fringe, counter-culture issue to becoming a core American value. Laws by the score were enacted and billions of dollars expended to protect environmental features and qualities. Based on the immensity of those shifts, the current clash between property-rights advocates and environmental protection proponents could have been predicted.

Often unacknowledged and thus unappreciated in the current debates is that the legal doctrines that determine the balance between private and public prerogatives and rights in land have been evolving for centuries. Since the earliest days of the American colonies our law has recognized the shared interests in land between sovereign and individual owner. Private ownership was never unfettered: One of the most enduring concepts in common law is the obligation to use property in a manner that does not adversely affect one's neighbor. American law has long recognized the necessity of fairly allocating the burdens and benefits of property ownership.

The Fifth Amendment to the Constitution contains a provision (extended to the states by the Fourteenth Amendment) that states in part: ". . . nor shall private property be taken for public use, without just compensation." Since the 1920s, the courts have acknowledged that the exercise of validly enacted regulations could affect a "taking" of private property if application to a particular parcel resulted in leaving the owner without a viable use of the property. This established doctrine, however, only starts the process of determining whether a law or regulation so severely impacts a property that compensation is due the owner.

Law students encounter the concept of property as a "bundle of sticks" that includes the right to occupy and use property for an economically productive purpose, to exclude others, to convey title or ownership interests, and to convey by will the property to others. Each stick is limited by laws and limitation or loss of one stick does not automatically mean abrogation of one's property rights in a constitutional sense. In many modern cases, the extent of a regulation's economic impact on property is often a critical question. Regulations that protect water resources or scenic vistas can negatively affect the market value of a specific property, however, while enhancing market values on others. Established law requires an owner's expectations of value to be reasonable and backed by some investment. Recent U.S. Supreme Court decisions have placed greater emphasis on public authorities defining specific ways in which regulations may legitimately affect property values.

The rate of doctrinal change has been evolutionary, not revolutionary. Property rights advocates, seeking more rapid and far-reaching change, have solicited support from federal and state legislatures for their views. In particular, they have pressed for economic impact assessments of new regulations and set a lower threshold of regulatory impact that would trigger compensation. Although these pursuits have netted a few state laws, they have encountered resistance based on Americans' high valuation of environmental protection. The recent report of the President's Commission on Sustainable Development, endorsed by business, environmental, and other leaders, expresses those values in calling for maintaining an equitable share of the nation's natural wealth for future generations. Although no end to the debate is in sight, the genius of American law is its ability to avoid abrupt shifts, respecting precedent but continually adapting to accommodate society's changing needs and expectations.

The Local Framework for Regulating Development

Cities, counties, and other local governments undertake planning, zoning, and additional forms of development regulation according to state enabling statutes and, in some cases, through home rule charters granted by states. The four cornerstones of local governments' regulatory programs are comprehensive plans, zoning ordinances, subdivision regulations, and capital improvement programs. Almost all local governments regulate development using these tools. Many communities also adopt additional measures to manage growth and development.

Comprehensive Plans

The basic, guiding document of the public regulatory process is the comprehensive plan, sometimes known as the general plan or master plan. A comprehensive plan describes the ways in which a community should develop over a 10- to 20-year time frame. Usually a plan consists of written development goals and policies, supplemented with maps. The plan provides guidelines for local officials in decisions about the quality, location, and amount of development.

Comprehensive plans are distinctive for their long-range outlook and broad scope of development concerns. Thus, plan statements of overall development objectives and policies may be quite general. However, the plan may also incorporate or be supported by more detailed plans for specific elements of development, such as housing and infrastructure systems, or for particular areas of importance, such as central business districts.

Depending on specific state statutes and court decisions, comprehensive plans may be optional or mandatory for local governments. They may be merely advisory in nature or legally binding on public decisions. From state to state, and often locality to locality, therefore, comprehensive plans differ greatly in content and significance. Although many jurisdictions now formulate and regularly consult their comprehensive plans as serious policy documents to guide decision making of local officials, some local governments continue to treat them as strictly advisory and highly flexible guides to community development. For that reason, plans often become outdated, are written to be overly general, and ineffectively influence decision making on development issues.

Zoning Ordinances

Zoning is the most widely used form of land use regulation. Most homeowners understand zoning; most neighborhood associations routinely track rezoning issues; council members' positions on specific zoning cases can spell defeat or victory for their reelections. Zoning was invented in the early years of this century and zoning regulations quickly spread across the land. Many local governments adopted zoning before any other type of development regulations.

Zoning ordinances include written requirements and standards that define the permitted uses of land and buildings, the height and size of buildings, the size of lots and yards around buildings, the supply of parking spaces, size and type of signs and fences, and other characteristics of development. These provisions are spelled out for a variety of zoning districts, which are delineated on maps. When a local government adopts a zoning ordinance, every property within its jurisdiction is designated within a specific district and its use is regulated by the ordinance provisions for that district. The ordinances also establish procedures for changing zoning.

The fundamental purpose of zoning is to separate incompatible uses of land. Housing is separated from smoky or noisy industries; shopping centers that generate traffic are separated from residential neighborhoods; tall buildings are separated from low ones. Through years of practical experience and litigation, single-family homes have emerged as the primary beneficiary of zoning. In most communities, zoning is largely a device for protecting old and new residential neighborhoods from other uses viewed as incompatible.

Because traditional zoning is rather inflexible, however, a host of alternative zoning approaches have been formulated, as summarized in the box on page 26. According to planning theory, zoning is supposed to be based on the comprehensive plan. In a sense, zoning is a detailed application, in written and map form, of the more general policies spelled out in a plan. In states not requiring consistency between plans and zoning, however, zoning may vary from the plan, causing a great deal of unpredictability in the community development process. Furthermore, some local governments persist in treating both comprehensive plans and zoning regulations as transitory documents subject to constant amendment and revision to meet short-term pressures for development.

Subdivision Regulations

Subdivision regulations provide public control over subdivisions of land into lots for sale and development. The regulations require all subdivision developers to obtain approval of detailed plans before they can record and sell lots. The plans must satisfy requirements and standards pertaining to the size and shape of lots, design and construction of streets, water and sewer lines, other public facilities, and other concerns such as protecting environmental features. Thus subdivision regulations act as a principal point for public regulators to impose special requirements for facility improvements and other conditions.

Capital Improvement Programs

These programs are adopted by local governments to provide a construction schedule for planned infrastructure improvements, including expected sources of funds to pay for them. Usually the program is adopted each year for a six-year period. It furnishes a guide to when and where public improvements will be made, and therefore where development is encouraged.

Until recently, capital improvement programs in many jurisdictions were subject to year-to-year political wheeling and dealing, so that they

Selected Zoning Innovations

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Conventional zoning, especially as practiced up to the 1950s, has been supplemented by many special types of zoning to address needs for greater flexibility in regulating development. Some of the most significant variations are summarized below.

Planned unit development (PUD): An optional procedure for project design, usually applied to a fairly large site. It allows more flexible site design than ordinary zoning would allow by permitting options or relaxing some requirements. A PUD frequently permits a variety of housing types and sometimes other uses as well. Usually a PUD includes an overall general plan that is implemented through specific subdivision plans.

Cluster zoning: Allows groups of dwellings on small lots on one part of the site to preserve open space and/or natural features on the remainder of the site. Minimum lot and yard sizes for the clustered development are reduced. Like PUDs, site designs are subjected to more detailed reviews.

Overlay zoning: A zoning district, applied over one or more other districts, that contains additional provisions for special features or conditions, such as historic buildings, wetlands, steep slopes, and downtown residential uses.

Floating zones: Zoning districts and provisions for which locations are not identified until enacted for a specific project. Such zones are used to anticipate certain uses, such as regional shopping centers, for which locations will not be designated on the zoning map until developers apply for zoning. They usually require special review procedures.

Incentive zoning: Zoning provisions that encourage but do not require developers to provide certain amenities or qualities in their projects in return for identified benefits, such as increased density or rapid processing of applications. Incentives are often used in downtown areas to gain open space, special building features, or public art in connection with approved developments.

Flexible zoning: Zoning regulations that establish performance standards and other criteria for determining appropriate uses and site design requirements rather than prescribe specific uses and building standards. Performance provisions are rarely applied to all zoning districts but are often used for selective locations or types of uses (e.g., PUDs).

were not effective predictors of actual future improvements. With more private involvement in funding improvements and greater fiscal concerns of local governments, capital improvement programs have become more significant as a regulatory tool.

These four basic regulatory tools function as the principal framework for growth management programs in most jurisdictions. With skillful use, they alone can act as an effective growth management program. As described later in this chapter, however, most local governments have added other regulatory techniques to manage development more effectively.

Regulatory Procedures

The regulations adopted by local governments establish procedures that require property owners and developers to obtain zoning, building, and occupancy permits. Depending on site conditions and circumstances, other permits—for wells and septic tanks, use of environmentally sensitive lands, and special uses—may be required as well. Applications must be submitted for these permits, usually with supporting documentation. If the type of development is allowed "by right" according to zoning for the property, an administrative official can approve the proposal without further action. If the proposed development is allowed only under certain conditions or requires a change in zoning, special hearings and other procedures are necessary, some of which can be quite lengthy.

As development regulations become more complicated and convoluted, applicants are faced with many decisions about making their way through the permitting process. For a specific project it may be necessary to request changes in adopted plans or zoning or to use special procedures that allow alternative uses or more flexible design treatment. A request for changes or special procedures usually exposes a project to closer scrutiny by public officials and the general public and often creates opportunities for public officials to require additional amenities or private contributions to infrastructure.

Use of these special "discretionary" procedures has grown in recent years. In part this occurred because public officials discovered that they can control the size and quality of development more directly through case-by-case reviews rather than through written regulations. In part developers opt for discretionary procedures to avoid overly restrictive regulations and to achieve greater flexibility in site design and development. But special interest groups and citizens' groups also discovered that such procedures open opportunities for intervening in decisions The result is that negotiations over conditions of development approval can be quite lengthy, require additional special studies, and involve a number of interests.

A time may come when the local regulatory process clearly needs to be rethought and reorganized. Communities frequently form task groups, comprising both public and private interests, to review existing regulations and procedures and recommend ways to streamline them. As described in Chapter 7, complex or overlapping requirements and

lengthy, bureaucratic procedures can be simplified to reduce wear and tear on both the public and private sectors in the permitting process. At the same time, design and construction standards can be brought in line with community objectives, particularly if reducing housing costs is a concern.

Public Participation in Development

An important governmental activity often overlooked in growth management programs is public participation in specific developments, either in determining sites for major community facilities such as stadiums and convention centers or in public/private project partnerships. Although public and private sectors most often perform independent functions in the development process, in actuality public development activities can have significant effects on community development.

Public Facility Siting

Decisions about the location and nature of major public facilities can play an important role in stimulating or steering private development. Communities often determine to fund construction and operation of convention centers, for example, to improve the economic climate; they choose locations for convention centers to interact effectively with existing and planned hotels, restaurants, and other convention-related private businesses. Similar decision making is applied to stadiums, sports arenas, performing arts centers, and other facilities that can stimulate community development. At the other end of the spectrum, public officials must weigh the development *disincentives* of locating such facilities as landfills and halfway houses.

Public/Private Ventures

The usefulness of public participation in private development projects as a particularly proactive means of managing community development has been proven over and over. There are many examples of public assistance given to stimulate private development in the interest of promoting local economic and business opportunities, as well as obtaining community amenities not otherwise attainable. For decades, federally assisted programs such as urban renewal, new communities, housing subsidies, model cities, and urban development action grants provided funds and processes for engaging in public/private development efforts. With cutbacks in federal aid, local governments sponsored similar joint projects to develop or revitalize town centers, industrial areas, residential neighborhoods, transit station areas, and even recreation areas. Many such projects, like Baltimore's Inner Harbor redevelopment, aimed at revitalizing deteriorated sections of older cities and towns. Other projects, however, such as a regional shopping center promoted as the town center for Fairfield, California and a mixed-use project on county-owned land at a Miami rail-transit station, are in developing suburban areas. Through these types of projects, an impressive body of experience has been gained by local officials in ways to design and implement public/private projects.

Thus, beginning early in the century and continuing through the immediate postwar period, local governments sought to guide development using basic techniques for planning, zoning, subdivision regulation, and programming capital facilities. While those tools proved useful, the public role in community development is ever-changing, requiring local governments to respond to emerging conditions and needs. Types of policies, regulations, and programs that local governments can employ for guiding development have steadily widened as communities experimented and refined approaches and techniques. In many communities, these efforts evolved into comprehensive, far-reaching growth management programs, using approaches and techniques described in the next section.

The Emergence of Growth Management

The concept of growth management arose in reaction to the surge of urban growth that swept across the nation soon after World War II. Pent-up demands for development suppressed by the lean Depression years of the 1930s, followed by the restrictions imposed by the war during the first half of the 1940s, generated a burst of development unlike any that had gone before. The Federal Housing Administration and Veteran's Administration underwrote housing mortgages for the common man. Automobiles, which had just begun to be the travel mode of choice prior to the war, poured onto the highways, taking their passengers to find homes in the countryside. Developers ushered in the era of big projects—huge subdivisions of new houses on sites scraped clean of vegetation, the spread of innovative shopping centers and industrial parks. Development quickly spread beyond city boundaries into areas soon incorporated into separate suburbs.

During this time, growth was considered a plus for any community. Local progress was equated with the number of new houses built, new jobs created, increases in local spending, and the like. Growth expanded small communities into large ones that were a source of pride to the business community and most residents. Growth was expected to expand the local tax base, bring a broader range of goods and services, raise

income levels and create job opportunities, provide a wider choice of housing, and lead to more and better community facilities to be enjoyed by all.

However, although developers were simply catering to the mass market—and then to its creators, the baby-boom generation—the picture generally was not a pretty one. The media—newspapers and magazines in those days—printed photo after photo of the new developments, usually using aerial angles guaranteed to show the immensity and bleakness of suburban development. Standards of development were not high; the usual procedure was to bulldoze the site into shape without worrying too much about stands of trees and stream valleys. Environmental sensibilities were virtually unknown. Many of the first developments took place on small lots platted in the 1920s, planting houses a few feet apart on a deadly dull gridiron street pattern. Post-development landscaping took years to gain a foothold.

Then, as Randall Scott observes in his introduction to the *Management and Control of Growth* volumes published by the Urban Land Institute in the 1970s, "the backlog of demand for more adequate and improved facilities could no longer be ignored: the 'catch-up' costs tended to be high, setting the stage for taxpayer reactions against increased costs, poor land use management, and further development."[2]

Adding to the strength of that reaction, Rachel Carson's *Silent Spring,* published in 1962, opened many eyes to the degradation of the environment taking place on a national and global scale.[3] The resulting environmental movement led to the passage of the National Environmental Policy Act in January 1970.

The environmental concerns that drove desires for managing development were reflected in the work of a national Task Force on Land Use and Urban Growth, which in 1973 published *The Use of Land: A Citizen's Policy Guide to Urban Growth,* a highly influential publication for the next generation of environmental advocates. Said the task force:

> There is a new mood in America that questions traditional assumptions about urban growth and has higher expectations of both government and new urban development. . . . It is time to change the view that land is little more than a commodity to be exploited and traded.[4]

Later in the report, the authors described the consequences of 600,000 new residents settling in Nassau County on Long Island from 1950 to 1960, doubling its population:

> . . . an unrelieved pattern of low-density, single-family homes, shopping center sprawl, and haphazardly sited business, industry, and entertainment. Once-blue bays are polluted; once-common shellfish have disappeared, wetlands are bulkheaded and beaches are eroded; in many areas open space is virtually gone.[5]

These kinds of conditions, repeated in region after region across the nation, energized civic activists to demand better regulation of the development process. Even as the National Environmental Policy Act was being signed into law, local governments in widely scattered areas were formulating and adopting the first growth management acts.

The Pathbreakers

Several early experiments with new forms of development regulations gave wide publicity to some of the basic techniques of growth management. In fact, three led to court cases that established fundamental legal justifications for growth management. The communities of Ramapo, New York; Petaluma, California; Boulder, Colorado; and Boca Raton, Florida borrowed approaches to growth management from a variety of ideas then circulating in the planning world. Their early innovations, however, put them on the map as pathbreakers for the growth management movement.

One of the best-known early growth management programs was adopted by the town of Ramapo, New York in 1969. Ramapo was a semi-rural community within commuting distance of New York City. Following growth pressures created by completion of two major highways, the town adopted a comprehensive plan that called for low- to moderate-density development. Then it amended the zoning ordinance to require that residential development could take place only as public facilities were available to support it. An 18-year capital facilities budget accompanied the amendment. Each proposed project was rated according to a point system that awarded points based on availability of sewers, drainage, public parks, recreation facilities, major road facilities, and fire houses. Projects not receiving 15 points would be postponed until facilities were available or the developer constructed them.

After adoption of this ordinance, Ramapo's housing construction dropped by two-thirds. Builders sued but the development control system was upheld by New York's highest court in 1972, in *Golden v. The Planning Board of the Town of Ramapo.* Although the system was criticized because the town itself controlled provision of only parks, sewage collection, drainage, and some roads, its innovative requirements, positive judicial support, and widespread publicity made it a decisive influence in the spread of growth management.

The small community of Petaluma, California, with 15,000 residents in 1960, stood in the path of suburban growth pushing north from San Francisco. Between 1968 and 1972, 2000 new residents a year moved to the city. Although the town had planned for residential development and

provided a full complement of services, by the early 1970s its sewer and water systems were operating almost at full capacity and elementary schools in newer parts of the city were on double sessions. In 1971 a moratorium was put in place to give time to rethink the general plan. In 1972 the city adopted a "residential development control system" that limited development to 500 new housing units a year, applicable to any development of more than four units. (This limit was substantially lower than recent rates of development.) In addition, the system set quotas for various housing types and their distribution throughout the city; the city also established an annual competitive evaluation of proposed projects according to criteria that included consistency with the plan, availability of services, urban design features, and provisions of needed public facilities.

The city was sued by homebuilders in 1973 over the annual limit on new dwelling units. After lengthy court battles, including a decision by the Federal District Court against Petaluma's system, the U.S. Supreme Court settled the issue in 1976 by letting the residential development control system stand. Interestingly, Petaluma's pace of development after 1976 never again approached the 500-unit limit. The system has been modified considerably over the years, especially focusing on design issues; a growth limit has been maintained.

Boulder, Colorado, another city undergoing rapid growth during the 1960s and 1970s, adopted a growth limit in 1976. The move came in response to an initiative by the Boulder chapter of Zero Population Growth to halt development at the level of 40,000 housing units. The city's counter initiative, which won, called for the city to keep growth "substantially below" the 1960s' growth rates. Following the work of a blue-ribbon commission, the city drafted an ordinance patterned after Petaluma's, called the "Danish Plan" after its primary author and sponsor. It limited annual housing development to an increase of 1.5 percent, or an average of 450 units per year. Various exceptions to the limit allowed a growth rate of about 2 percent. As with Petaluma, subsequent growth rates generally fell below that limit. However, Boulder has continued to innovate with many growth management techniques that are described in several later chapters.

Boulder's success at controlling residential development was not paralleled by its regulation of nonresidential development. A lengthy boom in commercial and business growth prompted Boulder to adopt controversial limits on that type of development in 1995.

Another example of early attempts to impose growth limits occurred in Boca Raton, Florida. Citizens appalled at the rate of development in that resort community during the 1960s pressed for and got city action in 1972 to limit development to a maximum of 40,000 housing units, or a population of about 105,000. This was implemented by adopting a moratorium on all but single-family and duplex residential development

and rezoning to reduce permitted densities. In 1979 a Florida court, in *City of Boca Raton* v. *Boca Villas Corporation*, 371 So. 2d 154 (Fla. App. 1979), struck down the limit because it was not based on sound studies and deliberations. However, the court let the rezonings stand.

The regulatory innovations, subsequent experience, and court decisions resulting from these communities' growth management efforts gave public officials and planners across the nation license to proactively guide their community's development process, even to the point of limiting the amount, pace, and location of future growth.

The Growth Management Paradigm

The swirl of publicity and activity concerned with growth management that built on these early examples lent the term a certain mystique in the land use and development field in the early 1970s. Academicians, researchers, and attorneys soon fashioned a theoretical construct that postulated an awesome combination of content and process for growth management. Growth management in some circles meant a broadly comprehensive but meticulously detailed program enacted by public entities to control all aspects of development—the classic "management" scenario.

In other circles, growth management offered an opportunity to slow or stop growth. Population control advocates, active then as now, exerted a great deal of effort (as illustrated by Boulder's experience) in proposing limits on the amount of growth in specific communities. Today, proponents of population control remain opposed to the positive aspects of growth management, because a successful growth management program accommodates growth—and hence a larger population.

Elsewhere, in the places where growth management programs actually were adopted and functioned, growth management became a more mundane, practical concept. Selected techniques for carefully managing growth were simply added to existing planning and zoning programs. Over time they were tinkered with, revised, and extended to respond to specific community concerns. It turned out that growth management programs were helpful approaches to public guidance of the development process but a far cry from total control. The experience of Montgomery County, Maryland demonstrates many of the approaches—and some of the perils—of growth management as practiced in many communities.

The Case of Montgomery County, Maryland

Montgomery County, an affluent suburban jurisdiction in the Washington, D.C. region, has managed growth through a comprehensive, multi-

faceted program for almost 70 years. The county earned a nationwide reputation for imaginative and aggressive planning and growth management, using a variety of increasingly complex techniques. Montgomery County's program of managing growth incorporates many of the techniques used by other communities throughout the nation.

Populated by almost 800,000 residents in 1995, Montgomery County adjoins the northwestern boundary of the District of Columbia. Until the 1950s, its pastoral landscape was dotted with rural settlements; near the District border, a few subdivisions sprang up catering primarily to higher-income families seeking a country-club or rural setting. During two postwar decades, from 1950 to 1970, however, the county experienced rapid growth as development spilled over the District boundaries, attracted not only by the county's suburban lifestyle but also by the construction of Interstate 270 and the I-495 Beltway.

During the 1970s the pace of growth continued, abetted by the completion of Metrorail connections. But the nature of growth changed: The county began accruing the commercial and industrial features of an urban center. High-tech and bio-tech industries were attracted by the presence of the National Institutes of Health and the Bureau of Standards, among several federal agencies. Today, with 474,000 employees, almost two-thirds of county residents work within the county, and commuting into the county exceeds commuting out of it. Bethesda, Rockville, and Silver Spring, once small-town market centers, evolved into major business, shopping, and governmental centers focused on Metrorail stations. In the process, the county became the fifth highest local jurisdiction in the nation in terms of income-per-capita and the fourth highest in percentage of adults with 16 or more years of schooling. The county became a large, diverse, affluent urban center.

Strategic and Detailed Planning. The county's planning process began in 1927, when the Maryland General Assembly established the Maryland–National Capital Park and Planning Commission as the planning, zoning, and park acquisition body for Montgomery and neighboring Prince George's counties. Montgomery County adopted a home-rule charter in 1948 instituting a county planning board as part of the Park and Planning Commission; and in 1968 the charter was revised to establish a county executive and a county council that, unusually, was given authority for planning. Today, the planning board prepares and administers plans and ordinances; the county council appoints most board members and all hearing examiners and officially adopts plans and ordinances; and the county executive appoints some board members, programs facilities in the capital improvement program, prepares water, sewer, and solid waste plans, reviews and comments on other plans, and may veto planning board appointments and budget items, subject to council overrides.

In 1957 the Commission adopted the first master plan for the entire two-county area. The plan was revised in 1969 as the major development policy document for the counties. Entitled "On Wedges and Corridors" the plan proposed to contain urban sprawl by focusing development within two major transportation corridors, the I-270 corridor and the State Highway 29 corridor, and by preserving large areas of low-density development and open space between them. Although revised and detailed since then, the major concepts in that plan remain the cornerstones of the county's planning efforts.

The plan was augmented by "community" and "sector" plans prepared and adopted to apply more detailed land use guidance to specific areas, including plans for business districts and transit station areas. In recent years, the plan has been supplemented by issuance of annual growth policy reports that assess conditions and recommend course corrections. Zoning and subdivision ordinances have expanded in scope and detail to respond to a wide variety of concerns. A capital improvements program is adopted annually to provide facilities in concert with development.

Montgomery County's planning program is highly participatory, so a number of task forces and special working groups have reviewed the policies of the general plan over the years. In general, the groups have continued to support the basic elements of the plan, reaffirming the concentration of development around existing settlements and the preservation of farmland and open space in the northern part of the county.

Plan Implementation. The county implements the plan through the usual regulatory and programmatic devices such as zoning, but four initiatives deserve special mention and discussion: (1) the use of adequate public facilities measured as a core concept for year-to-year management of development; (2) the agricultural land preservation program; (3) the county's inclusionary housing program; and (4) its encouragement of development around Metrorail stations. All are keys to effective growth management that have attracted nationwide attention.

An adequate facilities ordinance was adopted in 1973 to require a review of facility capacities available to serve prospective development as a condition of project approval. With this ordinance, the county's programming of capital facility improvements (water, sewer, roads, transit, schools, police and fire protection, and health clinics) became a life-or-death matter for developers. A sewage moratorium in effect from 1970 to 1978 introduced both public and private interests to the intricacies of rationing available capacities. Subsequently, the planning board employed computer-assisted models to estimate traffic and fiscal impacts of proposed developments.

Since 1986, the county has prepared an annual "growth policy report" that defines the available capacities of facilities for new housing and employment in 18 policy areas throughout the county. The test of adequacy

is based primarily on the adequacy of roads, which are the most vulnerable part of the infrastructure system at present (although in some cases school capacities are also considered). The annual report identifies the areas in which development can continue and those where development must await improvements or where transportation-demand measures must be adopted.

The measurement of "adequate" facilities, however, has been complicated by the unpredictable delivery of improvements promised in the capital improvements plan (CIP), affected by the usual annual politically inspired decisions, by the difficulty of matching incremental demand increases to the timing of major facility construction, by continuous changes in consumer demands and expectations for facilities, and by reductions in state and federal funding for capital facilities. The slump in development from the late 1980s to mid-1990s meant that many projects were postponed indefinitely.

The planning board responded to these problems by introducing ever more complex methods for projecting and calculating demands and for meeting projected demands. The annual growth policy report incorporates the results of policy-area transportation studies, but each proposed project is also subject to a local-area transportation review. With the slowdown in public funding of facilities in the 1970s and 1980s, developers were forced to resort to higher levels of "contributions" to counter the lack of planned or available capacity, especially for roads. Another tack encouraged by the county calls for developers to commit to traffic reduction measures such as carpools, van pools, and transit subsidies. About 100 trip-mitigation programs have been approved by the planning board, which has created a full-time staff position for monitoring the results.

Over time, however, the county discovered that the adequate facility requirements were prohibiting further development in the areas planned for higher-density growth, especially around Metrorail stations. The level of private improvements required by the system also was forcing developers to forego development of affordable housing. Accordingly, the county revised adequate facility requirements in 1994 to permit continued development and affordable housing near the Metrorail.

Another important policy involves preservation of agricultural land, a major part of the planned "wedge" between and around the transportation corridors. In 1980, after several years of studies, the county council adopted a "plan for preservation of agriculture and rural open space" (see Figure 2.1) that established a 25-acre minimum lot size for the northern one-third of the county—91,000 acres—and proposed the use of transferable development rights (TDRs) to partially compensate affected property owners. Later, "receiving areas" were identified in the master plan to which development rights could be transferred, resulting in somewhat higher permitted densities.

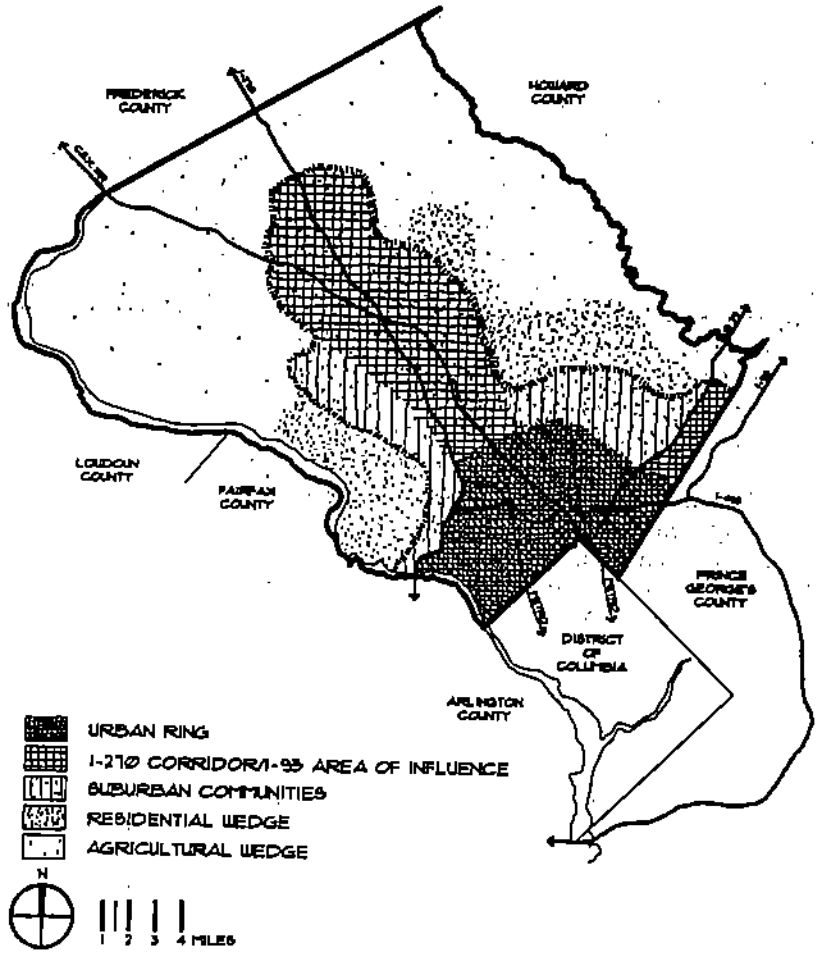

Figure 2.1

Montgomery County plan/agland preservation area. The wedges and corridors that demarcate urbanized and agricultural areas in Montgomery County's General Plan are shown in this map included in the most recent revision of the plan. (From *General Plan Refinement, Goals and Objectives*, prepared by the Montgomery County Planning Department, 1993, p. 11.)

This program was quite successful in lowering the political heat that might be expected from up-county property owners (especially after a judge, in upholding the program, noted that the county legally could have downzoned without resorting to TDRs). The program did run into considerable controversy in the neighborhoods selected to be "upzoned" by receiving added development rights. Nevertheless, by 1993 the program had set aside 30,000 acres for agriculture, protected from future development. A 1988 report of the county council's Commission on the Future strongly supported the continuation of the agricultural and open space reserve, calling it Montgomery County's "Central Park." The 1993 report incorporating revisions to the general plan commented that "the 'Wedge' is as important today as it was 30 years ago. . . . It is very much the green lung of Montgomery County." (p. 7)

In 1973, faced with mounting housing prices, the county adopted an inclusionary housing program requiring developers of 50 or more units of housing to set aside 15 percent of the units for low- and moderate-income housing. In return, developers could obtain an increase in permitted density. Although builders and developers grumbled about the program, the county amassed 9183 units of moderately priced housing through the program. Recently the program was modified to provide a sliding scale of density bonuses related to the percentage of total units allocated to the program. In addition, the county has augmented production of moderately priced housing through other county-sponsored affordable housing programs. Its accessory housing zoning provisions, for example, authorized creation of 800 in-home accessory apartments since 1984.

Reflecting a central theme of the general plan that called for focusing development along transportation corridors, Montgomery County has pursued aggressively the development of higher densities around Metrorail stations. Of particular value in this effort was the creation of floating zones that permit higher densities in some business areas subject to design review and contributions of amenities. The zoning provisions have been applied particularly in rail/bus station areas to encourage transit-friendly development and a high order of design and appearance. Figure 2.2 shows design parameters for buildings and spaces.

The zoning incentives helped to focus a substantial amount of development around stations in Friendship Heights, Bethesda, Silver Spring, White Flint, and other business centers in the county, transforming rather drab business areas into a series of major suburban employment and shopping centers. In Bethesda, millions of square feet of office space and hundreds of residential units were developed within three or four blocks of the Metrorail station during the 1980s. Within that area, zoning density options were subject to an overall development limit set by the sector plan and by traffic capacity measures, with the consequence that a "beauty contest" erupted to gain higher-density development rights. Developers contributed a wide variety of public art, fountains, landscaping, and other amenities to obtain project approvals, in the process gaining substantial density increases. (Developers, of course, prefer the latter without the former; many county residents have clamored for the former without the latter.)

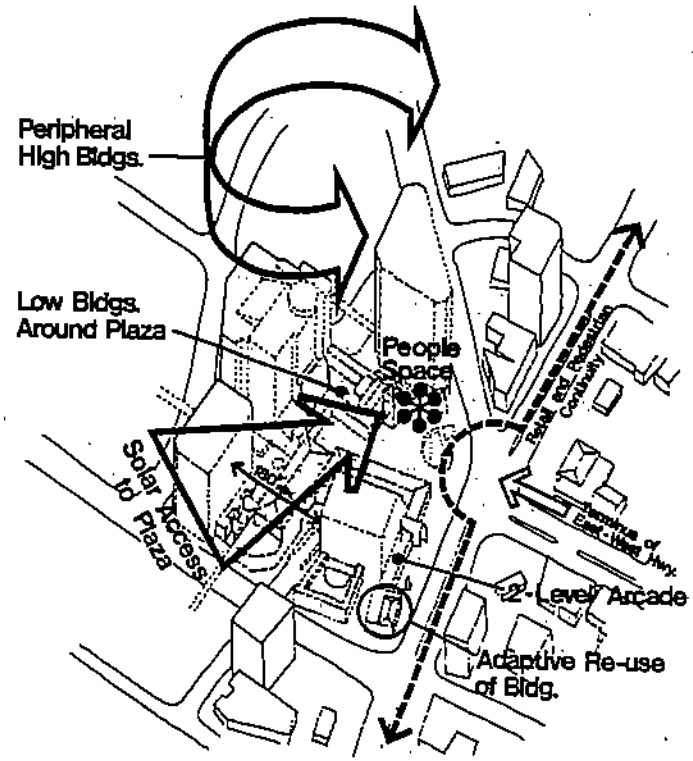

Figure 2.2

Bethesda urban design. In preparation for a development competition for a transit-station area in Bethesda, the Montgomery County urban design staff identified key design characteristics for proposed buildings and spaces. The design concept was followed in the final development. (From *Bethesda Metro Center Urban Design Study,* prepared by the Maryland–National Capital Park and Planning Commission, 1980.)

Consistency and Longevity. Over seven decades, Montgomery County steadily evolved an approaoh to growth management that has generally prevailed over attempts to change its direction and import. Richard Tus-

tian, the county's planning director during the 1970s and 1980s, attributes this to four principal factors:

- The endowment of status as a chartered county, coupled with attitudes of state courts that generously applied the "fairly debatable" rule, both of which gave the county considerable latitude to develop its own planning approach
- The outlook and standards of early residents, many of whom came to Washington, D.C. as new dealers and who respected professionalism in government, and residents' high degree of affluence and education that allowed them to meet their high standards
- The early personalities who entered county government, who had the vision and political savvy to establish the bi-county planning commission and water and sewer agency
- The long-term strength of the Washington, D.C. metropolitan economy that has provided a fairly predictable stream of public and private investment capital to support community development

The confluence of these factors has tended to shelter the planning function from extremes of political and economic cycles, allowing it to evolve incrementally over time. Indeed, it might be said that the county's growth management system is continuing to build on the fundamental concepts laid down by the general plan 25 years ago. For many years, the planning board has been refining and improving both the high-level policy area and the nuts-and-bolts technical end of the system.

The county represents a populous, rapidly growing jurisdiction that has tried most of the bells and whistles that planners have contrived to expand ordinary planning and zoning into full-fledged growth management. In general, the county has attempted to keep pace with development rather than limit it, although its attempts have fallen short from time to time.

These innovations in planning, zoning, and implementation programs have not escaped controversy. Neighborhood groups, community coalitions, and even political parties were formed to resist or boost almost every new approach to development management. Particular issues in recent years focused on traffic congestion, school overcrowding, open space preservation, and rapid changes in the Silver Spring, Bethesda, and Rockville business districts. A vocal movement in 1986 to establish limits on development resulted in a council vote to cap growth, subsequently vetoed by the county executive. The next county election revolved around the growth issue, and a major business redevelopment plan for Silver Spring was subject to a referendum. Although the pro-development candidate won and the referendum lost, citizens' groups continue to apply pressures to reduce the pace of development.

These pressures have been tempered in the mid-1990s by a new appreciation of the value of economic development; however, the planning process appears to be spinning its wheels. Robert Marriott, the county's planning director from 1991 to 1995, believes that the complex structure of development decision making in the county virtually prohibits revisions to the basic approach. Under present conditions, he says, citizens fearful of runaway development will allow only tinkering with the planning and regulatory process.

Montgomery County's role in the broader regional development scene is also problematic. It is widely believed by Washington real estate watchers that the county's rigorous development reviews, restrictive agricultural zoning, and developer exactions have driven small developers, in particular, to other less demanding jurisdictions and, by limiting supplies of developable land, have escalated land and housing prices. Certainly Frederick and Howard counties, on Montgomery County's northern border, are undergoing real estate booms. Richard Tustian counters this argument by observing that the county has been simply "doing its growth management job." (It is not the county's fault, in other words, if developers elect to move their activities to jurisdictions with lower standards.)

A 1988 assessment of the general plan placed the blame for housing price increases on an unexpected spurt of economic growth in the 1980s that unbalanced the jobs-to-housing ratio. The resulting housing shortage, said the report, will be rectified by the market as long as there remains plenty of developable land for new housing. However, housing prices in the 1990s continue to be substantially higher than those in bordering counties. As an expanding economic center viewed as a highly desirable residential area, however, the county's housing prices are likely to remain high.

Like many other growing areas, the county has had its share of traffic woes, which are the leading cause of citizen outcries to dampen development and are responsible for moratoriums on development prompted by adequate facilities requirements in several parts of the county. Part of the blame for traffic congestion can be laid to a multiyear decline in road construction during the housing recession in the mid-to-late 1970s. The subsequent housing boom and accompanying rapid increase in commercial space could not be matched by increases in road capacity. At the same time, as in most metropolitan areas, home-to-work travel patterns were focusing more on intracounty travel and the number of cars per family was increasing.

The county responded to rising needs for road capacity with heroic measures, including encouragement of "road clubs" of developers to help fund improvements, adoption of impact fees in hard-hit areas, heavy emphasis on encouraging alternative transportation means, and, in some in-

stances, the county's assumption of responsibility for funding state road construction. In the late 1980s, the state undertook major improvements to I-270 and several other critical highway arteries.

Still, traffic congestion continues to be a problem, requiring postponements of development in a dozen areas of the county. The recent downturn in development sharply cut developer initiatives to improve roadways. In addition, citizen demands for traffic improvements are matched by citizen resistance to road improvements in their neighborhoods.

A more basic issue is the extent to which the county planning board has been absorbed by its computer models, threshold standards, and number-counting to the exclusion of longer-range strategic development concerns. One planning consultant and citizen activist, Goldie Rivkin, commented that the planning board "had lost sight of long-term directions and goals." She observed that the general plan is over 25 years old and has been updated "by the grinding of models and numbers" without rethinking basic premises.

Robert Marriott points out that many of the county's planning woes are products of regional development forces beyond control of the county. Traffic problems, for example, are due more to through traffic pouring in from the growing counties to the north than to local travel. In that circumstance, he says, putting the brakes on development in one area of the county to meet adequate facilities standards is the equivalent of "shooting yourself in the foot." Only a more rational, workable regional planning process, highly unlikely in the Washington, D.C. area, would begin to overcome this problem.

Conclusions. In short, Montgomery County's growth management program emphasizes an approach that is comprehensive both vertically and horizontally. The program's long-term emphasis on ensuring development quality, focusing development along transportation corridors while preserving agricultural and open space lands, and requiring adequate facilities may be viewed as imposing extraordinary restrictions on the operation of the real estate market; but the program is strongly supported by county residents. Although the county may be faulted for failing to keep up with some aspects of growth (e.g., traffic and affordable housing), the program's policies and implementation practices have attempted to address future development needs in a highly professional and technically sophisticated manner, stressing the public interest but sensitive to meeting development demands. Many of the county's current problems with its planning structure flow from the lack of a strong regional framework that could deal with the effects of growth external to the county.

Growth Management Approaches and Techniques

The way Montgomery County has blended a variety of growth management provides a real-world introduction to the array of techniques available to many communities. The adoption of specific techniques, of course, depends on individual state legislative and judicial constraints on development regulation, as well as local attitudes and objectives. The most commonly used techniques are briefly identified and described below as an introduction to more complete descriptions of their characteristics and applications provided in subsequent chapters. The techniques build on the basic planning techniques of comprehensive planning, zoning, subdivision regulations, and capital improvement programs.

Thousands of communities have adopted some aspect of growth management; innovation and experimentation with new techniques is widespread. Some researchers have defined as many as 57 separate techniques that may be used in growth management programs, including special types of regulations, programs, tax policies, administrative approaches, review procedures, and more. Other experts have clustered techniques in a few categories. Some classifications have been based on the aspects of growth that are intended to be controlled, such as controls over population, types of development, and infrastructure. Other classifications have focused on the location of development, related infrastructure provision, and mitigating impacts of development.

This listing of growth management techniques reflects the primary concerns of each of the subsequent chapters, from Chapter 3 through Chapter 8. These chapters focus on the major goals or purposes of growth management.

- Techniques for managing the location and character of community expansion
- Techniques to preserve natural resources and environmental qualities and features
- Techniques to ensure efficient provision of community infrastructure
- Techniques to maintain or create a desirable quality of community life
- Techniques to improve economic opportunities and social equity
- Techniques for regional and state guidance of community development

The brief descriptions here are amplified substantially in the following chapters. However, because the science and art of growth management has blossomed so recently and is evolving rapidly even now, many growth management techniques do not fit neatly into categories and

classes. The techniques are listed in the category that appears most germane to the issues addressed by this book, and their possible alternative uses are noted.

Techniques for Managing Location and Character of Community Expansion: "Where to Grow"

The location and character of development is managed first and foremost by comprehensive plans, zoning, and subdivision regulations that specify where, how much, and what kind of development can take place. However, these traditional techniques can be supplemented by others that apply firmer policies about community expansion.

Urban Growth Boundaries. Urban growth boundaries restrict urban growth to a specific area around a community and prevent the spread of development into the surrounding countryside. Similar in concept to *urban service limits* and *designated growth areas,* boundaries typically incorporate enough land for about 20 years of projected development, adjusted periodically in response to development trends. Boundaries are intended to promote more efficient use and extension of infrastructure systems, encourage more compact development, and preserve open space and natural resources in rural areas. For all these purposes, the establishment of official boundaries to urban growth posts a reminder to public officials that urban growth should happen in some areas and not others. That objective can be achieved through zoning based on a plan, of course, but boundaries appear more long-lasting than zoning, which can be changed relatively easily.

Development Policy Areas. A variation on urban growth boundaries, development policy areas permit more options for steering development. The "standard" version delineates an *urban* area of established neighborhoods and centers, *urbanizing* areas where most new development will take place, and an *urban reserve* area where open space is preserved until some future date. Planning and zoning provisions are based on these broad policy delineations.

Promotion of Infill and Redevelopment. One way to curb urban sprawl is to direct more development toward existing developed areas, where vacant or underused sites can be redeveloped. Declining neighborhoods and commercial and industrial areas may be revitalized through programs that provide financial and other incentives to stimulate new development in those areas. Incentives may involve subsidized land costs, tax exemptions or reductions, infrastructure improvements, assistance from business development groups, and the leadership of community development organizations. Cities and suburbs can take advantage of federal and state programs to improve housing and stimulate economic development.

Extra-Jurisdictional Controls. Development that occurs outside a city or town limit may not be guided by adequate development controls or coordinated with existing development within the city or town. For those reasons, municipalities frequently attempt to control developing areas outside their jurisdiction through annexation policies, "extra-territorial" development controls, or interjurisdictional agreements. Annexation of newly developing areas can be relatively easy or difficult, depending on state laws regarding annexation. Some states instead allow municipalities to control planning and/or zoning for a certain distance outside their boundaries, although this control may be advisory rather than regulatory in nature. Lacking either of these possibilities, municipalities can formulate agreements with adjoining municipalities, townships, or counties about the amount and character of growth that should occur outside the municipality—for example, requiring that municipal standards be observed in such development.

Limits on Growth. Following the lead of early growth management programs, some communities continue to manage urban development by limiting the amount of growth that can take place. Typically, an ordinance limits the number of building permits issued each year, although some communities limit development through a schedule of infrastructure improvements. The most extreme version of growth limits is the moratorium, which halts all or most development to allow time for a policy or service crisis to be resolved.

Techniques to Protect Natural Resources and Environmental Qualities and Features: "Where Not to Grow"

In addition to programs and regulations to steer growth in certain directions, many techniques have evolved to prevent development on lands deemed important for natural resource or environmental purposes. The federal government and many states require protection of water quality, wetlands, floodplains, and habitats of endangered or threatened species. At the local level, however, a great variety of techniques is in use today, chiefly focused on the approaches listed below.

Land Acquisition. When open land is to be protected from development, acquisition is the most certain approach. Land may be acquired either totally (in fee) or by purchase of development rights or easements. Acquisition can be accomplished by local governments, regional or state

agencies, land trusts, conservancies, and other nongovernmental organizations. Land may be donated or paid for through taxes, fees, grants, or incentives. Land or development rights so acquired can be used to conserve open space, protect environmentally sensitive lands such as wetlands and wildlife habitat, preserve agricultural or forested lands, and protect significant natural features important to the community such as ridgelines and dunes.

Conservation Planning/Zoning. Comprehensive plans and zoning maps are used to identify conservation areas in which communities propose to limit development. Conservation areas may include stream valleys, floodplains, ridges and hillsides, known wetlands and wildlife habitats, and other natural features. In many cases, such conservation goals are implemented through subdivision regulations that require developers to set aside identified conservation areas, sometimes in return for the ability to transfer development rights from those areas to adjoining or even remote developable areas. In other cases, zoning in conservation areas requires large lot sizes (e.g., 5 to 10 acres) that will presumably conserve substantial amounts of the resource. Such regulations, however, run the risk of triggering claims that they take property without compensation.

Water Quality/Erosion Control Regulations. Ordinances or subdivision provisions can require low-density development or no development on steep slopes, erosion control measures during and after construction, and preservation of stream valleys to reduce erosion that can degrade water quality. Particularly in areas that depend on groundwater for potable water supply, communities can protect groundwater quality from inappropriate development above the aquifer and around wellheads. In most cases, the amount of development is limited and/or types of development that might pollute the aquifer (such as some industries) are prohibited.

Delineation of Critical Areas. Through the federal coastal zone management program, many states have established the practice of designating critical areas in which special attention is paid to environmental preservation efforts. Some cities and counties also use this method of defining important areas for detailed planning and special management considerations. Most commonly, sensitive coastal environments are designated as critical areas in which development should be permitted only under special circumstances.

Mitigation of Development Impacts. Protection is not necessarily an all-or-nothing approach. Many regulations allow some development in natural resource or environmentally sensitive areas if the threatened resource can be largely preserved. Requirements to *cluster development* in and around rural settlements, for example, reduce the amount of land taken from agricultural use and intrusions in farming activities. *Set-asides or reservations* to retain significant natural features or highly valuable sensitive lands within development sites can allow some development. It is also possible to *define in advance of potential development* conservation areas that should be preserved. Use of *mitigation banks* to permit off-site replacement of environmentally sensitive lands under highly controlled circumstances is a growing practice.

Agricultural Land Protection. A variety of techniques are used to protect agricultural land from conversion to urban uses. *Agricultural districts* can be formed by farmers who wish to continue farming. The districts prevent sale of land for other purposes and retain tax assessments at levels suitable for agriculture. *Right-to-farm laws* protect farmers from nuisance suits and other problems raised by suburban residents living near farms who complain about noise, odors, and other accompaniments of agricultural activities. *Agricultural zoning* retains agriculture and associated uses as the primary permitted uses.

Watershed Planning and Management. River basin planning and management activities take place in many areas. Public agencies charged with watershed management attempt to guide land use to protect water quality, reduce flooding damage, and support water-related economic and recreational activities. The agencies accomplish these ends primarily through planning and educational efforts.

Environmental Threshold Standards. Some communities have established "threshold" standards for environmental qualities that determine when and where development may take place. Such standards are similar to a "carrying capacity" approach, in which the capabilities of the land, air, and water to absorb urban development are critical determinants of planned growth. Reasonable standards are established on a communitywide basis for air and water quality, energy consumption, preservation of important natural features, and other aspects of the environment. Proposed developments are not permitted to impact environmental qualities beyond the threshold standards.

Techniques for Efficient Provision of Community Infrastructure

One of the keys to growth management is managing the provision of public facilities and services that support community development. Comprehensive plans and zoning ordinances lay out a framework of develop-

ment that presumably is responsive to the availability and efficiency of expanding infrastructure systems, including streets, water and sewer lines, schools, libraries, parks, and other common facilities. Subdivision regulations require developers to provide most or all of the facilities needed to support their projects. Capital improvement programs establish a schedule and funding basis for extending and improving facility systems. If well linked, coordinated, and constantly updated, these ways of managing infrastructure can be effective. Yet many communities find that they must rely on other means to ensure that infrastructure development corresponds to other aspects of community development, especially in meeting funding requirements. Many communities use some or all of the following techniques for these purposes.

Functional Plans. Many comprehensive plans incorporate or are supplemented by functional plans for the various community infrastructure systems. The plans spell out in detail the community's current inventory and standards for schools, roads, parks, and other facilities; project future needs for expanding and improving them; and indicate priorities of location and timing for their provision. In many cases, these plans are key guides to the location and sequencing of future community development.

Adequate Public Facility Requirements. These regulations require that public facilities are adequate to support proposed projects before building or subdivision permits are issued. First suggested as early as 1955, adequate facilities provisions are emerging as one of the most common forms of growth management. The provisions require that project developers show evidence that streets, schools, sewer and water lines, and other facilities in or near the project have capacity to serve the amount of development proposed. If not, development cannot proceed unless the developer is willing to build or fund capacity additions. The community's schedule of capital improvements thus governs the rate of development that can take place.

Exactions, Impact Fees, and Special Districts. In the past decade or two, many communities have taken steps to obtain more funding of infrastructure related to new development from developers and facility users rather than from the general public. They have increased the kinds and amounts of facilities to be contributed by developers as a condition of development. These "exactions" have been broadened from just basic on-site facilities to a larger array of on-site and off-site facilities related to the project. Many communities also impose impact and other fees and charges to provide funding for facilities and services. In addition, the use of special taxing districts has been expanded as a means of financing

public facilities in developing areas. All of these funding methods tend to shift infrastructure costs from the community at large to specific beneficiaries of improvements.

Transportation Demand Management and Congestion Management Programs. Many communities have adopted techniques to improve air quality and reduce traffic on local streets and highways by reducing travel demands from new development. Typically these programs either mandate or provide incentives for using alternatives to single-person automobile travel, including high-occupancy vehicle lanes on major highways, carpool programs, financial subsidies for bus and rail fares, reductions in parking capacities, staggered peak hours, and so on. Such programs often require private involvement to reach public objectives.

Project Point or Rating Systems. Some communities have adopted project review systems to rate the acceptability of projects according to a list of criteria and standards. Projects that "earn" a certain threshold of points are approved. Point systems usually incorporate availability of adequate facilities and services as a major component; they may also include other factors such as neighborhood compatibility, environmental impacts, and locational criteria. Although such systems are essentially an evaluation procedure, they act as significant guides to the character and location of development.

Techniques to Maintain or Create a Desirable Quality of Community Life

Ultimately, all growth management techniques are employed to assure that communities can offer a desirable quality of life for their residents and workers. A number of techniques, however, are oriented most directly to maintaining existing qualities of development or guiding the quality of new development, as compared to the quantity or location of development.

Design Reviews. Local governments can establish special guidelines and procedures to review the design of proposed projects and buildings in parts of the community where specific qualities of design are particularly desirable. Design review criteria and procedures are established to provide more detailed guidance of design decisions than can be written into prescriptive regulations such as zoning. Design review procedures are frequently applied in downtown areas and historic districts, but also may be employed for complex mixed-use projects, industrial and commercial projects, or unusual housing developments such as clustered housing. Design reviews may be especially useful in guiding development in infill

and redevelopment areas where compatibility with surrounding development is important, and in siting development within or adjoining environmentally sensitive lands.

Flexible Planning and Design. Many communities have adopted special regulations that permit more flexible treatment of site and building development than allowed by the rigidities of conventional zoning and subdivision regulations. The most common form of flexible planning is *planned unit development* (PUD), which offers options to developers for determining uses, densities, building placement, and other planning and design factors applied to their sites. PUD provisions establish overall parameters for development, such as average densities and open space requirements, but allow variable treatment of these factors within a given site. PUDs almost always require special review procedures (including design reviews) to approve these variations from normal requirements. In addition, *zoning overlay districts* can be adopted to provide for special treatment of certain areas such as historic districts, transit station areas, and downtown areas. Usually such districts add requirements for development but may also allow greater flexibility in meeting certain standards.

Incentive and Performance Zoning. Traditional zoning provides little flexibility to mix uses, employ innovative design techniques, or secure useful public amenities. Incentive zoning encourages developers to meet specified public objectives in development by offering advantages in the form of density bonuses, more flexible design treatment, and more expeditious processing of approvals. Performance-based zoning employs standards and criteria—rather than prescribed lists of uses and requirements—that allow more choices among potential land uses and design treatments. Standards and criteria set limits to the impacts of land uses to assure compatibility among adjacent uses and encourage development in preferred locations.

Historic and Architectural Preservation. Preservation of historic and architecturally significant buildings and districts can retain a community's unique heritage while offering opportunities for reuse and revitalization of older urban areas. Many communities have adopted legislation to encourage preservation of landmark buildings and significant districts, usually by requiring detailed reviews of building proposals and sometimes by offering incentives for preservation. Like infill and redevelopment policies, preservation measures help to retain the livability of existing urban areas and to reduce pressures for new development in fringe areas.

Neighborhood Conservation and Revitalization of Declining Areas. Using a variety of protective devices (i.e., restrictive zoning, traffic-calming) and specific actions (i.e., rehabilitation programs, infrastructure improvements), many communities attempt to maintain desirable neighborhoods. Communities also may undertake efforts to revitalize areas of special importance to the community. Downtowns, arts districts, and older strip commercial centers are examples of especially significant areas often targeted for public support of development and redevelopment actions. These efforts, which require special planning, careful design, and realistic implementation programs, can provide critical support for market forces in maintaining and improving community quality of life.

Landscape Ordinances. Various types of ordinances and provisions have been adopted by local governments that establish standards for landscaping in new developments. Some provide for verdant scenery along major streets and at important community entrances. Other provisions are directed to mitigating impacts of development on adjoining development; usually these take the form of landscaped buffers or planted areas in surface parking lots.

Tree or Plant Conservation Requirements. Some communities adopted provisions in subdivision regulations to conserve existing trees or plants in proposed developments. The provisions specify the amount, size, and/or types of vegetation to be preserved, or require restoration of a percentage of formerly vegetated areas.

Techniques to Improve Economic Opportunities and Social Equity

All communities should be concerned with widening economic and social opportunities, either within the community or as part of a wider regional economy and society. Viewed as part of an overall strategy of managing community development, programs to enhance social and economic opportunities can help to strengthen existing neighborhoods and businesses and to reduce needs for spreading new development farther into the countryside.

Economic Development Incentives. Economic development incentives can include marketing programs to attract new jobs, various types of subsidies and tax relief policies to encourage business activities, and actions to revitalize declining business areas. Federally sponsored enterprise zones and empowerment areas incorporate these ideas. Most com-

munities maintain such programs but few coordinate them with other aspects of their growth management program, such as infrastructure improvements.

Economic Opportunity Programs. Community-backed employment and vocational training and assistance programs and affirmative action programs provide ways for local residents to take advantage of employment opportunities offered both within and outside the community.

Affordable Housing Programs. Many communities have adopted incentives or requirements to encourage development of affordable housing, especially in areas where rising housing prices are excluding some elements of the population. Affordable housing programs can offer public subsidies for land and development costs or provide low-cost financing and other incentives to encourage development of affordable housing. Regulations can provide incentives such as density allowances to stimulate production of lower-cost housing. Affordable housing also can be mandated by inclusionary or linkage requirements. *Inclusionary housing* programs require developers to incorporate affordable housing in their developments, usually in return for densities. *Linkage* requirements usually pertain to developers of commercial space, who are required to contribute to affordable housing funds or build housing as a condition of development approval.

Techniques for Regional and State Guidance of Community Development

Many regional and state agencies guide community development, including planning for transportation systems, directing economic development activities, providing standards for schools and water and sewer systems, and other activities. State and regional growth management programs are described in some detail in Chapter 8. They influence the patterns and character of community growth most directly, however, by use of the following two types of mechanisms.

Coordination of Local Planning. Most regional planning agencies and some state planning agencies engage in coordination of local governments' plans. Sometimes this is accomplished through preparation of regional plans that provide guidance for local planning, especially regarding development issues that transcend purely local concerns. In addition, some states require local governments to prepare and adopt plans consistent with state goals established by state law.

Reviews of Developments of Regional Impact. Some regional and state agencies have been given powers to review large-scale project proposals that might affect several local jurisdictions. The agencies usually are concerned with reducing the potential negative effects of such projects on surrounding areas.

Conclusion

Clearly, communities may employ a great variety of techniques in practicing growth management. The subsequent chapters illustrate in detail how these techniques have been and are being applied in specific circumstances. In addition, the final chapter describes how the techniques can be mixed and matched to structure a balanced program that meets community objectives. The use of visioning approaches, collaborative planning, and benchmarking help communities reach that balance.

Growth management has come of age. The concept is now seen as a fundamental means of organizing community efforts to anticipate future development and provide ways to guide that development toward goals that meet communitywide objectives. As the following chapters make clear, the practice of growth management can be complicated, both politically and technically. Techniques and approaches must be carefully tailored to specific community needs and attitudes, and constantly adapted to changing circumstances. The evolution of the growth management approaches and techniques described in this chapter will continue to open up new possibilities for managing community development.