

Planning and Zoning in Southern New York State: Recent Changes and Implications for Planning and Geographic Information Systems in the 1990s

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ABSTRACT. Historically, rapid development pressures have induced changes in zoning and planning regulations. This case study examines a cross-section of New York City's outer suburbs at different development stages. The study concludes that regulatory changes reflect the influences of individual consultants, county initiatives and local municipal controversy. The increased use of geographic information systems will change planning data management, but zoning strategies will remain resistant to standardized analysis.

Historically, planning in the United States has been a reaction to the pressure of development or land use changes that threatened the status quo. Zoning is the legal mechanism for enforcing planning by restricting uses and densities. This control of private property through planning threatens what is widely understood as a basic American right; the freedom to do what one pleases with one's own land, and limitations of that right have been arbitrated through the courts. The history of planning in the United States, and shifts in the focus of what is planned, reflect both the thrust of legal decisions over land use and the strength of development pressure.

Zoning enactment and change can be viewed as examples of innovation and subsequent diffusion (Mano, 1983). Since the first enactment of comprehensive zoning in 1916 in New York City, ordinances have become increasingly sophisticated and specific. Until recently, the documents associated with zoning ordinances have not changed. They consist of paper maps, use tables and local municipal laws. Court challenges to the content or changes in zoning ordinances have focused on discrimination and home rule issues.

The increasing use of geographic information systems threatens to open a whole new series of legal questions in zoning and planning, based on the fidelity of computer-generated maps and the decisions derived from them. The challenge is likely to be stronger where individual states have not taken the lead in setting the accuracy standards and use procedures for geographic information systems.

This case study examines recent changes in planning and zoning in the outer northern suburbs of New York City as the latest example of planning reaction to development pressure. These changes generate several questions about planning policy differences between municipalities and between counties in the outer suburban ring of New York City. The new comprehensive plans exhibit specific characteristics and suggest there will be an increasing need for sophisticated geographic information systems use in planning in the 1990s.

Planning and Development Pressure

The initial enactment of zoning in New York City was the result of a local social conflict that arose when loft factories employing immigrant garment workers invaded the exclusive Fifth Avenue retail district. The innovative idea of zoning initially diffused locally in a contagious pattern from the New York City node, with hierarchical diffusion nationally to cities across the United States. This occurred because the lawyers who wrote New York City's ordinance perceived there would be a future court challenge and marketed the concept of zoning aggressively to assure national acceptance (Toll, 1969).

The subsequent popularity of zoning can be divided into periods of advance and stagnation, related to development pressure revealed through construction activity. The first phase of zoning enactments from 1916 to 1930 was a reaction to the rapid development that peaked in the late 1920s. In the construction slowdown during the Great Depression, zoning was largely ignored. Development pressure during the post World War II building boom resulted in a wave of new zoning ordinances and amendments in the late 1950s and 1960s. Federal funding support through the 701 program of the 1954 Housing Act provided money for the comprehensive planning studies that were required to accompany these zoning ordinances.

By the 1970s, zoning had become a more visible, controversial issue, as zoning ordinances that discriminated became the focus of legal battles. The 1973 oil crisis slowed development pressure in New York City's outer suburbs and thus the need for land use control through zoning change. The period from 1973 to the present has been one of increasing diversity in zoning regulations. In the second half of the 1980s, a building boom in the Northeast has brought a resurgence of actions in planning and zoning. These new regulations employ a greater sophistication in the factors considered as well as the techniques for regulating land use. Geographic information systems provide a powerful tool in both mapping and land development analysis.

Study Area

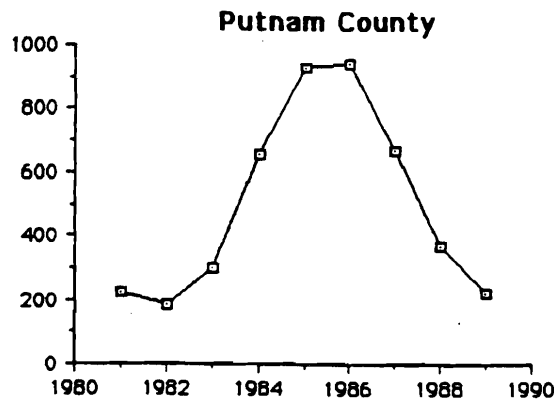
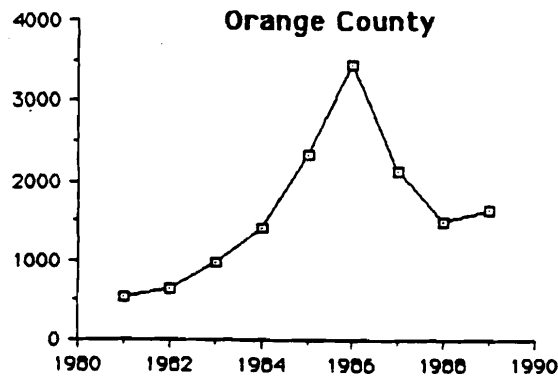
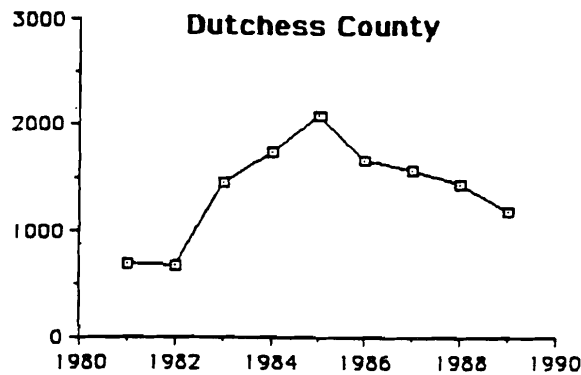
A survey of municipalities in the northern outer suburbs of the New York City metropolitan area provides an example of the history of zoning adoptions and the most recent period in planning and zoning activity. Orange, Putnam, and Dutchess Counties comprise the study area, ranging from approximately 30 to 100 miles north of New York City, displaying levels of development related both to their access to New York City and to local conditions. In the preliminary 1990 U.S. Bureau of the Census figures, New York State population grew only 0.4% in the last decade, while Orange County, the fastest-growing county in the state, posted a 17% gain. Population in Putnam County increased 8.4% and in Dutchess by 5.4% (New York Times 1990).

The rapid growth in these counties on the rural fringe of the New York metropolitan area has exerted renewed stress on the existing zoning regulations, many of which were written in the late 1960s and early 1970s. The best indicator of development pressure is the number of building permits granted in the three counties. A building permit typically results in a constructed unit about two years later, but not all permits produce built units. However, building permits do indicate the pressure felt by planning boards. Figure 1 shows building permits issued for residential units for the three counties from 1981 to 1989. The permits peaked in 1985 in Dutchess County and 1986 in Putnam and Orange Counties, and there was a marked decrease in 1989. As development pressures increase, planning boards move to regulate or relieve the pressure by supporting new municipal regulations. Rapid development strains the municipal infrastructure, the provision of community services such as schools, and threatens environmental quality.

Planning Action

The municipal actions that can be used to control or slow growth are limited by law. Growth control mechanisms range from increasing the costs to developers, to radical changes in the zoning ordinance. While application costs and such developer-required contributions as recreation fees may be raised by a municipality without too much fear of a lawsuit, more drastic strategies tend to incur court action. Zoning ordinance changes are required to be made "in accordance with a comprehensive plan" (Haar 1955). Thus changes often require considerable time to update the master or comprehensive plan and formulate a zoning ordinance that reflects the plan. Moratoriums to halt development during this time are legally limited by court precedent. Moratoriums

**Figure 1
Building Permits**



Source: U.S. Bureau of the Census. 1981-1990. Division of Building Permits. Annual Reports. Washington, D.C.: Government Printing Office.

are likely to be challenged in court if they are in place for more than a reasonable time, and if employed when a planning action is not nearing completion through a local law. Typically, moratoriums of over 18 months are more likely to produce court action. While some municipalities ignore this threat, most are reluctant to institute a moratorium unless new regulations are under consideration. Another factor that slows the adoption of major zoning changes is the New York State Environmental Quality Review Act (SEQR), first enacted in 1978. SEQR requires an environmental impact statement as part of the process of major zoning changes, and it has specific time periods allotted for public hearings and comment. SEQR requirements mean that even a completed ordinance will take at least 6 months to enact. A moratorium during this period is legally defensible. However, SEQR can also be used to prolong the developer application period, since a developer can be required to prepare and rewrite an environmental impact

statement. Such requirements slow but do not avoid growth. The actions that were taken in the study area in response to growth pressure are shown in Figure 2 and Figure 3. Figure 2 shows the situation in the counties in 1987. The growth is concentrated in the towns (townships). Cities have declined in population along with most villages, except those influenced by a growing town. In Dutchess County, where building permits peaked earlier in 1985, sixteen out of thirty municipalities had initiated or completed a new comprehensive plan, four using a moratorium to complete the process. In Putnam County, where permits issued were highest in both 1985 and 1986, 4 of the 6 towns were in the process of developing a new comprehensive plan, 3 with a moratorium imposed. In Orange County, where the permits peaked in 1986, with a 49% increase from the previous year, planning reaction was slower, and 6 of 39 municipalities were in the process of developing comprehensive plans, two making revisions to zoning ordinances.

By January 1990, there was even greater planning activity (Figure 3). In Dutchess County, 5 additional municipalities had begun planning actions. In Putnam, the 2 remaining townships had begun comprehensive plans. The level of activity was much greater in Orange, where 14 municipalities had initiated new plans, 5 with revisions to current ordinances and 9 with new master plans.

County Differences

There are significant differences between reactions at the county level. County responses differ for a variety of reasons: past experience in providing planning direction, availability of personnel, economics and political exigencies. The planning response in these 3 counties reflects different levels of county leadership and support for individual municipal efforts. County planning was initiated in all three counties during President Franklin D. Roosevelt's New Deal programs, but lapsed in the early 1940s. Dutchess and Orange Counties revived their planning departments in the late 1960s, but Putnam County was without a planning department until 1980.

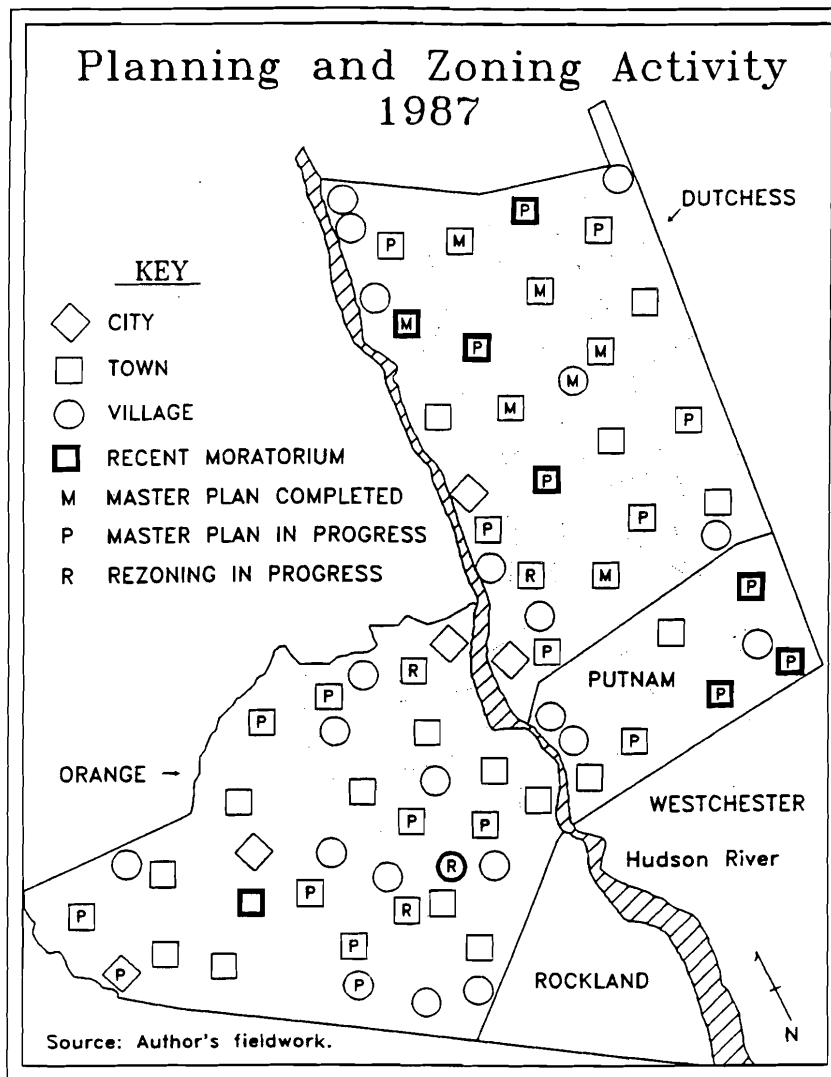
Dutchess County, which responded earlier to recent development pressure, has a larger presence in local municipal planning, providing leadership through a county-wide plan with specific planning objectives, endorsed by all but 1 of 30 municipalities by 1989. Dutchess County also provides, through contracts, planning support to municipalities in writing comprehensive plans and zoning ordinances as well as the required reviews of qualifying development projects and proposed municipal actions. Typically, planning and zoning documents are written by part or full-time consultants to individual municipalities. This is the situation in Putnam and Orange Counties, where a smaller staff (less than 10 compared to 25 in Dutchess) precludes greater involvement than the required County reviews.

Plan Characteristics

The characteristics of the recent plans reflect their writers. A handful of consultants dominate the planning in these three counties. In Orange County, only 3 consultant firms have been involved in providing plans for 17 of 22 municipalities reworking their goals and ordinances, and 8 have been prepared by 1 firm, run by a former county planner. Dutchess County itself was a major contributor to 13 of 25 plans within the county. Putnam, with only 6 towns, has only 2 firms responsible for the majority of municipal planning. The result of this small group of consultants in the study area is the emergence of a limited number of types of plans which are readily identifiable.

While the goals and purposes for individual places obviously reflect local municipal concerns shaped by unique characteristics and history, several general trends appear. First, planning strategies reflect a growing concern with preserving environmental quality. This broad category includes the protection of wetlands, surface and groundwater

Figure 2

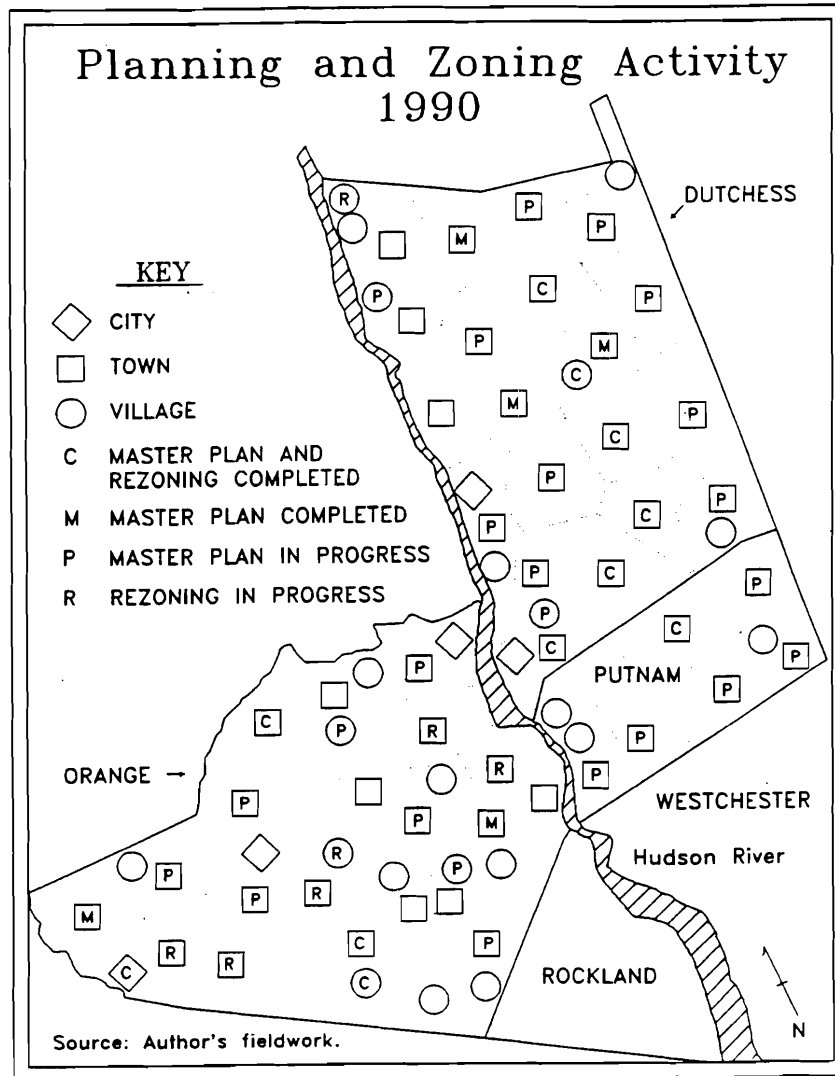


supplies, floodplains, agricultural areas, steep slopes, and open space as well as scenic resources and views. While some of the more far-sighted plans include mechanisms for implementation, others couch these goals under the general rubric of preserving "rural character". A second trend in plans addresses the pressing need for "affordable" housing. In many ways the second goal is in conflict with the first, at least superficially, and only a few plans suggest a mechanism for achieving this goal. Third, plans are increasingly concerned with the provision of adequate municipal infrastructure and community services, particularly schools. Fourth, hoping to maintain revenue to support these ideals, municipalities usually state an objective of strengthening the municipal economic base by attracting business and/or industry. These objectives contrast with the plans they are replacing in content and in the implied level of regulation.

Legal Implications

The concern and perceived need for a larger municipal role in regulation comes at a time when both the national and New York State legal climate is making such action increasingly subject to court challenge. The U.S. Supreme Court, traditionally unwilling to hear zoning cases which it regarded as local issues, chilled the national planning fra-

Figure 3



ternity in 1987 by agreeing to hear First Evangelical Church of Glendale vs Los Angeles County. The case involved Los Angeles County's imposition of a temporary moratorium on all construction in a floodplain (where lives had been lost) until a permanent new regulation was completed. The burden of the argument dealt with the need for monetary compensation even if such a moratorium was temporary. The feeling was that such action constituted a "taking", reducing the value of land without due compensation. While the case was ultimately sent back to the California Appeals Court, which decided that a taking had not occurred (Land Use Law and Zoning Digest 1989a), the decision sent a signal that new regulations had to be written with great care.

In New York State, recent court decisions have eliminated the use of impact fees to charge new developments for their impact on the increased need for community water and sewer facilities, changed the legal definition of family by striking down limits on the number of unrelated individuals who could live together, (Land Use Law and Zoning Digest 1989b), and in the July 1990 decision in Continental Building vs. North Salem Town, undermined the use of environmental restrictions (soil quality, percolation rate, and slope) in calculating housing density if "affordable" housing is thereby limited.

These court decisions have far-reaching implications in planning, which have to be addressed in creating legally defensible new zoning regulations.

The current legal situation and the complex nature of the role of planning regulations formulated in the latter half of the 1980s have significant concerns and implications for the use of GIS systems in local municipal planning. The new regulations require more detailed information, particularly for soil and slope data, used in adjusting lot sizes and clustering provisions. Most of these essential data are not available at a large enough scale. A major problem is the fidelity of maps used by municipalities in formulating plans and changes to zoning ordinances. Base maps at an appropriate scale with sufficient accuracy for local planning are often not available. In these cases the local tax base map, sometimes cobbled together from various sources, or a variety of maps, is regarded by municipal officials as being more "real" than data from a computer. Tax maps in this area of New York State are plagued with inaccuracies.

Current Use of GIS Systems in the Study Area

Unlike some other states in the Northeast that have initiated statewide GIS approaches, New York State is relying on county or local initiatives. Only 1 of the 5 major consultants in the 3 surveyed counties uses a GIS system, and not for all the client municipalities. The county planning departments are eager to use the technology, but only Putnam County is actually implementing a county-wide system. In 1988, the Putnam County real estate division and planning department, recognizing that base maps were unreliable, particularly in the areas of rugged terrain, commissioned a mapping program based on new aerial photos. Putnam is now in the process of providing updated, accurate tax base maps to the towns. Putnam County has an advantage in its smaller size. Putnam also had a greater need for such maps because the county regulates wetlands more stringently than does Orange or Dutchess. New York State protects wetlands larger than 12.4 acres, as well as smaller wetlands of critical importance, including those that provide habitats for endangered species, but towns may provide local regulation of smaller wetlands. Five of Putnam's 6 towns have local ordinances, the most stringent protects wetlands as small as a quarter acre, the least stringent regulates those of 5 acres. These types of regulations are becoming even more important, as New York City is in the final stages of passing a law regulating many activities within its extensive watershed. Putnam County, and Warren County, where the process is in an earlier stage, are the only counties in New York State to provide this progressive leadership in GIS. Hopefully, Putnam will become a model for neighboring counties, although economic constraints are a major obstacle.

Conclusion

Zoning diffusion in the 3 study area counties served as a past example of the spread of a planning innovation. Past surges of development have generated responses in the adoption and change of planning and zoning. Planning regulation promises to become increasingly complex, and increasingly based on computer technology. The future diffusion of GIS systems in the 1990s will provide an example of how a technological innovation, essential to planning, is adopted. Unlike zoning, where decisions were made solely on a local municipal basis, the adoption and use of geographic information systems will unfold in a series of patterns: top-down, bottom-up and variations between.

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