

**PREPAREDNESS FOR REDEVELOPMENT:
AN INVENTORY OF INFRASTRUCTURE IN THE MID-HUDSON REGION**

George A. Schnell and Peter Fairweather
Department of Geography and
Institute for Development, Planning and Land Use Studies
The College at New Paltz, State University of New York
New Paltz, NY 12561

ABSTRACT: In the wake of IBM's recent reduction of its labor force in the New York State counties of Ulster and Dutchess, activity directed toward recovery in the Mid-Hudson is proceeding apace. Rumors abound as the mammoth corporation attempts to regain its characteristic stability. However, the smaller and perhaps more geographically concentrated IBM will no doubt remain the region's dominant employer, at least in the near term.

In this paper, the infrastructure of selected counties in the Mid-Hudson and Upper Delaware is inventoried and assessed. Specifically, water, sewer, roads and bridges in the counties of Dutchess, Orange, Putnam, and Ulster are evaluated in terms of their ability to support development. The existence of municipal water and sewer services is critical to such development and, at the same time, problematic given that the mid-Hudson's municipalities vary greatly in their provision of water and sewerage beyond incorporated places. Moreover, external funding for such projects has become more difficult to obtain. Highways and bridges, under state and municipal aegis, are in need of repair, especially the local spans.

Findings suggest that Orange County is well prepared to continue its impressive record of growth. By comparison, the other counties range from modestly situated to bereft of services to support development on lands zoned industrial and commercial. Two of the counties studied have so few such sites with municipal services that they give the impression of disdain for industry and commerce perhaps in favor of upscale residential development.

IBM's reduced size has already cost the Mid-Hudson Valley Region of New York State at least 10,000 jobs in two years (6,500 separations and 3,500 in early retirement "buy outs"). As part of the long-term transition to a global economy, many other industries are also eliminating jobs and reducing wages. In order to revitalize the region's economy, its communities must be prepared to support industrial development. A key component in the region's preparedness is its infrastructure, particularly its water and sewer systems. This study reviews the condition of water, sewer, roads, and bridges in Dutchess, Orange, Putnam, and Ulster counties to provide some context for the region's ability to offset the loss in economic activity associated with IBM's smaller size. These four counties are located along the Hudson River on both east and west banks, their center about midway between New York City and Albany.

The information on water/sewer was largely derived from each of the county planning departments. Road and bridge conditions were obtained from the recent New York State, Department of Transportation (NYSDOT) study, 21st Century Mobility.¹

PREPAREDNESS FOR REDEVELOPMENT

WATER AND SEWAGE SYSTEMS

The draft of Dutchess County's Economic Development plan,² calls for strategies that "improve, link up and build on existing infrastructure," especially in urban areas; implement the county water and wastewater plan; give the Water and Wastewater Authority the power to create and impose solutions and raise the risk capital; and use water/sewer facilities at state hospitals to expand development potential.

Related to the above, the draft calls for business-park development, and lists the following specifications: The business parks, especially along I-84, will be fully served with water and sewer. Harlem valley Psychiatric Center and Wassaic Developmental Center are to be promoted as business parks.

The Dutchess water/wastewater plan³ charges the Authority "with development and implementation of water supply and wastewater disposal plans and programs. . ." The Executive summary goes on to discuss trends, problems, and needs, in which population growth of from 1,800 to 2,200 a year over the next 35-40 years is projected. (Given recent events, this could well be an overstatement, at least in the shorter term of the projection.) The county has more than 220 water and/or wastewater systems as a result of what the report terms piecemeal facilities planning. In addition, it states that many systems fail to meet present and projected needs. Over the next 40 years or so, the water supply should be increased by 11.2 million gallons per day (mgd) and the sewer capacity to 9.4 mgd. The plan calls for regional coordination to ensure cost efficiency, and cites water and sewer services as among the most important in building the tax base through business and industrial development.

In Dutchess County's "Summary of Areawide Water and Wastewater Recommendations"⁴ the plan lists for each municipality its water-and sewer-systems requirements. In several instances, the plan suggests multi-municipality cooperation in such development. Moreover, the recommendations include several cases of expansion to accommodate specific neighborhoods and/or specific commercial or industrial projects. Although dates for start-up and completion of the various projects are not included, and the period projected is some 35-40 years (nominally, 2035), Dutchess will indeed be much better prepared to induce growth of the commercial/industrial zones if the plan is implemented, at least partly, soon. It is difficult to judge the totality of which IBM facilities will become available, and when, and what would they mean for the more immediate term as sites for new or expanding activities. Indeed, these facilities alone could provide the wherewithal for sizable developments to replace the now smaller IBM.

Orange County's Revenue Bond Feasibility Study⁵ provides a review of existing conditions of water and sewer systems, as well as future demands for water and sewer. It includes municipalities in the Orange County Water Authority (OCWA)--one city, 11 towns, and 9 villages. The cities of Port Jervis and Newburgh are excluded as are the four westernmost towns, among others. No pattern beyond the non-OCWA towns in the west is discernible, the majority of the others omitted being sparsely populated. The study's key findings include the lower existing and projected consumption in this study compared to the one published in 1987.⁶

It should be noted that, early in 1991, the County of Orange informed OCWA that no county subsidy would be forthcoming--the project was to be self supporting from the outset. For this reason, phase 1 was found not to be feasible.⁷ A perusal of the municipalities listed indicated that Middletown City's residents are all served by central water and sewer, and the villages included in OCWA are 100 percent served by central water/sewer--this is expected given that incorporated places cannot have water or sewer districts and must, therefore, provide such services to all. Comments on the villages, however, include, among other remarks, "sewer-treatment plants in need of upgrading" and "sewer

moratorium," indicating problems with capacity versus demand or perhaps aging facilities. The towns are shown to vary from those having no central water or sewer services to 85 percent served by central water and 70 percent sewered.⁸ Given the long-established "urban-rural growth philosophy" of Orange County Planning that fosters concentrated development along major transportation corridors (as well as in urban places),⁹ the differences among towns is to be expected. It seems clear that the many business and/or industrial parks with water and sewer in place will become foci of further development, and those without could well be provided central services because of the growth philosophy and their (the parks) potential.

Materials from the Orange County Partnership¹⁰ confirm that, of the 18 business/industrial parks for which data are available in the form of Partnership listing sheets, all but three are shown to have municipal services. Other lists indicate as many as 27 "business parks" but only Partnership materials offer consistent data on water and sewer. Whatever the case, these parks seem to place Orange County well ahead of Dutchess, Putnam, and Ulster counties in growth potential.

As for Putnam County, only Carmel, Brewster, Cold Spring, and Nelsonville villages have central systems and, according to the County Planning Department, the systems in the latter three are antiquated. It seems that Putnam County is not poised for rapid development. Using a tired term, Putnam's inhabitants may well prefer to live in the many "bedroom communities" which dot the county, perhaps a wise path given its proximity to Westchester and New York City along with its commuter facilities to those sites.¹¹

Perusal of Ulster County's "Data Book"¹² reveals that, outside of villages and the City of Kingston, Ulster County towns are not well equipped with central sewer systems. Both water and sewer are available in some towns (as special districts) and, according to the County Planning Department, almost all are for residential use. The range of municipal water and sewer systems is vast--from no services in Hardenburgh to almost 60 percent of households with central water in Ulster and 49 percent sewered in the Town of New Paltz. Clearly, in towns with villages, the capacity is mostly in the incorporated portion, the village. For example, 1,923 housing units have central water in New Paltz, and 1,553 of that total are in the village. The point is that the industrial/commercial zones are often found in towns bereft of central services!¹³

TRANSPORTATION: ROADS AND BRIDGES

In much of the Mid-Hudson, a region of rural, relatively remote towns with sparse settlements ranging up the hierarchy to small cities, the private car remains the conveyance of choice, for many, of necessity. In many towns of Orange, inhabitants number few and densities are so low that public transportation is not feasible except where it meets the basic needs of those dependent on it. Moreover, employers are spread over wide areas, further complicating the ability to provide public transit. Parts of the four-county area are well served by the interstate system, especially Orange County, where I-87 (NYS Thruway) and I-84 intersect to produce north-south as well as east-west access. Orange County also has Route 17, a NYS limited-access highway used heavily by Mid-Hudson commuters as well as New York City dwellers who vacation in the Catskill Mountains. The Thruway passes through Ulster also and I-84 crosses the counties of Dutchess and Putnam as well.

Overall, NYSDOT sees traffic growth accelerating in the readily growing Hudson Valley with concomitant gains in travel congestion. Travel forecasts call for an increase of some 74 percent in the region's vehicle traffic by 2015. Such growth will exacerbate congestion, delays, and declining service, especially in fast growing areas and the routes frequented by daily commuters. Bridges across

PREPAREDNESS FOR REDEVELOPMENT

the Hudson are seen as being greatly affected by traffic increases. Land-use planning is central to traffic solutions and mobility improvements as well as other aspects of infrastructure.¹⁴ The condition of many bridges is tied to the ability to travel at rates deemed appropriate. Bridges are being replaced or repaired in record numbers. In a recent rating of highways, NYSDOT listed the Hudson Valley as superior to the statewide ratings on pavement conditions, but 6.0 percent of the region's state roads were listed as poor and 29 percent fair nonetheless.¹⁵ The number of deficient state road bridges is in part a function of their having been built in the same period, deteriorating at about the same rate, and demanding repair at the same time. Traffic, truck volume especially, among other forces, causes deterioration of road and bridge surfaces and foundations. The NYSDOT report cites a Transportation Board study that found a 90 percent surface wear increase from trailers in tandem. It states further that load limits should be more strictly enforced and that fines for overloads should be sufficient to deter that practice. The NYSDOT study calls for major increases in funding to repair state highway bridges, in better repair than local bridges in the region, but in need of work nevertheless.¹⁶

It is estimated that 20 percent of the Hudson Valley's roads are deficient and in need of repair. Although the actual conditions of the local roads are unknown, statewide estimates suggest that 27 percent of county roads are in need of work. It is further estimated that 47 percent of town roads are in need of repairs, as are 17 percent in villages and 9 percent in cities. This is a major problem given the mileage involved--there are over 6,350 miles of non-state roads in the four counties.¹⁷ It is obvious that all levels of government must contribute more to the repair and maintenance of the local roads, as well as to increasing capacity where warranted, given the inability to fund such activity at the local level alone.

The status of local bridges may present even greater constraints for economic development. Since one-quarter of non-state bridges were built in the 1930s, deterioration is well under way--458 of the 866 local spans in the four counties are identified as defective. The problem is fairly uniform across counties, ranging from a 45 percent deficiency rate for Putnam County's 56 local bridges to a 57 percent deficiency rate for Ulster's 290 local bridges.

In assessing funding, NYSDOT estimated that more than \$1.4 billion will be required to maintain Region's 8's¹⁸ non-state roads and bridges to the turn of the century, and this does not include capacity increases, increasing safety, and inflation.¹⁹

CONCLUDING REMARKS

Since the Second World War, the American economy has experienced, and continues to experience, major transformations--the fall of the steel industry, the birth and decline of the mainframe computer industry and the ongoing revolution in telecommunications and information processing. In spite of these changes, little has changed in the infrastructure serving many of the urban places of the Mid-Hudson region since central services were first installed. Incorporated villages and "census designated places" (along with the longer served cities, of course) continue to enjoy the lion's share of central water and sewer systems, used essentially by residential customers. Where service has been extended to special districts in the towns, that too serves primarily residential subdivisions. Perhaps paradoxically, this urban-rural dichotomy may prove to be a boon to development--a New York State Electric and Gas Corporation market study cited "generally accepted statistics" showing that 50 to 60 percent of nationwide industrial prospects prefer an available building to raw land or an industrial park site. New York State Electric and Gas has witnessed from 80 to 90 percent of its qualified leads

seeking a building in preference to a building site. A trend could begin in the Mid-Hudson, what with all the vacant space created by recent events at IBM.

REFERENCES AND NOTES

1. New York State, Department of Transportation. (1992) 21st Century Mobility. . .The Transportation Plan for the Hudson Valley. Albany: NYSDOT Graphic Arts.
2. Unpublished draft of the Dutchess County Planning Board. (1993) Economic Development Strategy, section on "Infrastructure."
3. Dutchess County Water and Wastewater Authority. (1992) Dutchess County Water and Wastewater Plan, Report and Recommendations to the County, Poughkeepsie.
4. Ibid.
5. Orange County Water Authority. (1992) Revenue Bond Feasibility Study. Goshen: 2CHM Hill, pp. ES-1 - ES-19.
6. Ibid., pp. ES-19.
7. Ibid., p. ES-1.
8. Ibid., Appendix A.
9. Orange County Planning Department. (1987) Comprehensive Development Plan, Orange County, Update to 1987. Goshen, pp. 3-10.
10. Orange County Partnership. (Various dates) Listings of Business/Industrial Parks.
11. Putnam County. (1992) Putnam County, NY, the Natural Environment for Business. Garrison, NY: Ring Bolgar Associates, Inc.
12. Ulster County Planning Board. (1993) Ulster County Data Book. Kingston, NY, pp. 19 and 67.
13. Ibid.
14. NYSDOT, op. cit., pp. 50 and 51.
15. Ibid., pp. 44 and 45.
16. Ibid., p. 46.
17. Ibid., p. 91.
18. Region 8, NYSDOT, includes the counties of Columbia, Rockland, and Westchester, in addition to the four studied in this paper.
19. NYSDOT, op. cit., p. 92.