

## **Surveying the Land: Brownfields in Medium-Sized and Small Communities**

*Michael Greenberg, K. Tyler Miller, Karen Lowrie, and Henry Mayer*

In 1993, the Environmental Protection Agency (EPA) was a catalyst in starting a small brownfields pilot program for local and regional governments to clean up brownfields sites and turn them into jobs, houses, and recreational facilities. Each recipient in the program was given a \$200,000 grant to identify contaminated sites and to plan remediation. Most of the initial pilot grants, made from 1993 through 1995, went to large localities with a median population of 271,000; five of the recipients had over a million residents. More recently, however, smaller localities have received grants, and some smaller cities have been included in county brownfields programs.

In 1999, for example, eight new recipients had a population below 25,000. EPA has now awarded more than 300 brownfields pilot grants to local governments, along with administering a host of related pilot programs for job training, reuse of sites for recreation, and facilitation of funding from other federal departments. While EPA's programs do include smaller localities, the reality is that there are thousands of medium-sized and smaller places in the United States without federal or state support for brownfields remediation and redevelopment.

Supported by the state of New Jersey, the authors investigated nine communities in the state to determine the status of these communities' brownfields programs, including the localities' knowledge of brownfields sites, their plans for the sites, and the likelihood that the sites would be redeveloped during the next five years. Policy actions that could be taken to assist the jurisdictions in their brownfields efforts also were examined.

Local government managers reading this article will learn about the current status of brownfields programs in jurisdictions that represent the range of possibilities from highly active to barely begun, as well as about the potential impacts of site redevelopment, not only on jobs, housing, and taxable property in small and medium-sized communities but also on the control of sprawl in greenfield areas.

### **Selection: Nine New Jersey Local Governments**

Nine places were chosen after weighing three factors: (1) the need to include jurisdictions where brownfields were likely to occur; (2) a desire to pick some places that already had strong programs and others that probably did not; and (3) a preference for picking sites from different geographic regions of the state. These chosen localities have large numbers of brownfields. Composing 5.6 percent of the state population, they account for more than 10 percent of its brownfields. On a per capita basis, they contain more brownfields sites than do larger cities. In short, they fit the mold of the brownfield-rich small cities and older industrial suburbs that also are relatively stressed by economic and social problems.

The populations of the nine cities range from 12,000 to 85,000. Their ethnic makeups vary widely, running from less than 1 percent to more than 90 percent African American, and from less than 1 percent to almost 60 percent Latino American.

There is more consistency among the nine communities with regard to their somewhat higher-than-average level of economic stress. New Jersey has the second-highest median family income among U.S. states, and the income of these nine cities ranges from 53 percent to 91 percent of the state's, with a median of 70 percent of the state's family income level.

Another way of summarizing these localities' economic status is by examining the wealth of their school districts. School districts in New Jersey are primarily funded by local property taxes. The state rated each district in our study on an eight-point scale from poor to wealthy. Four of the nine we rated in the poorest category, four of the remaining five in the second-poorest category, and the ninth in the third-poorest.

### **Surveying the Sites**

We visited city hall; spoke with local planners, economic and brownfields development officials, and tax assessors; reviewed cleanup and land use plans, wherever these could be found; and, most important, visited every brownfields site. The key objective was to determine the number of sites the locality knew about; its views on the future uses of these sites and ideas about when remediation and redevelopment would occur; and its estimates of how many jobs, housing units, recreational uses, and other opportunities and ratables would result from the redevelopment.

In many cases, the localities had no estimates at all. Our research team estimated a likely future use for every site in these localities, as well as for all the others, and converted our results into estimates of jobs, houses built, ratables, and other outputs.

### **Implications for Remediation and Redevelopment**

Wide variations existed by locality. In two jurisdictions, both of which held EPA pilot grants, staff already had developed an inventory of brownfields sites, designated a use for every site, and moved to redevelop the sites. In strong contrast, in two other cities without EPA-funded programs, we found properties that were thought to be brownfields sites but that actually contained occupied houses and businesses. Clearly, the data suggesting that these were former industrial brownfields sites were erroneous.

The data set is summarized in order to warn local government managers of the difficulty of redeveloping some existing brownfields sites. Government had taken over many brownfields sites in our study because of tax-delinquency cases and property abandonments, and these sites were much more likely than privately owned ones to face serious redevelopment handicaps. Government-owned sites were more likely to have had initial environmental assessments that showed contamination, and most of the government-owned brownfields also had a building standing on the site. Both of these realities mean additional costs to remediate the site and to remove or convert the structure.

Also, the vast majority of government-owned brownfields in these localities were in residential neighborhoods, which means that the concerns of the near neighbors must be considered. Public participation can lead to a politically popular redevelopment plan, as it has in several of the localities we studied. But it also can lead to controversy and time delays and to the unwillingness of private investors to commit themselves because of the financial risk of making a "stranded" investment.

Further, whereas large developers typically seek properties of five acres or more, only one-fourth of these sites extended to more than five acres. In short, the typical locally owned brownfields site in the cities studied was a one- to three-acre contaminated property with a standing building, situated amidst houses, stores, and other factories, some of these being operating facilities and others themselves already brownfields.

Despite these handicaps, however, brownfields sites can offer wonderful opportunities for small and medium-sized places, as the next section of this article attempts to show.

### **Near-Term Potential of the Sites in the Nine Cities**

We estimated the permanent and construction jobs available on or near the sites, annual revenues, housing opportunities, and other potential benefits of redeveloping brownfields by applying estimates from recently constructed projects in the state to all of the sites in these nine jurisdictions. Two of our resulting scenarios are presented here.

In the first, we assumed that only those sites that the localities believed would be redeveloped during the next five years would be redeveloped. In the second scenario, we assumed that all of the sites could be redeveloped during the next five years. The more optimistic model used our own estimates of redevelopment potential, when the local government had none or when we disagreed with its future use assessments.

Estimated results of redevelopment, in the aggregate, are 3,700 to 4,400 new permanent jobs; 4,900 to 7,300 new construction jobs; 3,000 to 4,700 people housed; and annual taxable revenues of \$12 million to \$21 million. To put these findings in context: these localities have lost both people and jobs, and their

taxable revenue is highly stressed. In 1987, for example, in aggregate they had 101,000 jobs; in 1997, they had fewer than 87,000. They also have lost population, decreasing from 385,000 in 1980 to 370,000 in 1996.

### **Extrapolation to the State And to the Control of Sprawl**

In 1962, the Regional Plan Association of New Jersey-New York-Connecticut observed, in its publication *Spread City*, that the region was drifting into a costly, spread-out pattern of housing concentrations versus vacant central cores—a pattern that would produce suburbs with "neither the benefits of the city nor the pleasures of the countryside."

Four decades later, this vision of the spread city has materialized. Today, brownfields redevelopment and the practice of infilling older suburban areas are viewed as methods of controlling this sprawl. Using data collected from the nine cities, we estimated the potential of brownfields sites to host new jobs and housing that otherwise might spread out over the greenfields of New Jersey. After all, the positive impacts of brownfields redevelopment can extend beyond the locality where the brownfields are located by providing an alternative to sprawl and thereby preserving greenfields. Results were extrapolated from the nine cities statewide, and scenarios were constructed based on high and low estimates of the numbers and sizes of the brownfields sites and on the proportion of sites that would be developed within the next five years.

The low, or conservative, estimate assumed a conservative number of sites that could be developed and that only those sites covered by a development plan would be developed. The more optimistic scenario assumed that a much larger number of sites could be developed and that all the sites would be developed within the next five years. Obviously, any assumption that the brownfields sites in these nine cities were representative of the full state was, and is, debatable.

With this caveat in mind, the more conservative estimate was that the redevelopment of sites across the state could host 19,000 new jobs, create 25,000 construction jobs, house 15,000 people, and generate \$61 million in annual revenues. The more optimistic outcome was that 67,000 permanent jobs and 111,000 construction jobs could be generated, 72,000 people housed, and \$324 million in annual revenues realized.

A context for these estimates is the fact that the state is expected to add 245,000 jobs and 225,000 new residents by 2005. In other words, a statewide brownfields redevelopment effort could supply between 8 and 27 percent of the new jobs and accommodate 7 to 33 percent of the new population expected.

### **Three Critical Policy Issues**

Three findings and related policy needs stand out for local government managers. The most important finding is the unequivocal evidence of wide disparities among small and medium-sized cities. Some have built an impressive institutional capacity to address brownfields and to fit the sites into overall municipal and neighborhood plans.

Standing in strong contrast to these models of what can be done are the many small and medium-sized cities and counties with no EPA or state aid to engage them and push them. They lack an inventory of sites, have no strategy for getting control of tax-delinquent land and/or for cleaning up these sites, and in many other ways simply are unable to move ahead on this opportunity.

In these localities, there are people who want to take advantage of brownfields redevelopment programs but have no resources to compete for federal or state funds. At best, these places might be lucky enough to fall under a county-level brownfields initiative, or the state might identify one or more of their high-priority sites and offer remediation funds. So, the first important policy implication for managers is that some jurisdictions with brownfields sites have no realistic hope of meaningful remediation in the near future without a lot of external stimulation from state government, businesses, or not-for-profit organizations.

New Jersey has a redevelopment authority and a statewide brownfields task force with powers and

financing that allow the state to help localities redevelop some sites. But, frankly, the amount of money available only is a small fraction of the funds needed to spark redevelopment, and many cities are being frustrated by their ineligibility for many of the most attractive programs.

The second policy-related finding for managers relates to matters of public health and environmental protection. The fact that the brownfields program was begun by EPA seems to be lost on some small and medium-sized places. Rather than seriously consider the risk of exposure from contamination, some view brownfields only as an economic redevelopment tool. True, an overturned drum constitutes contamination. But it seems inconsistent to use taxpayers' funds from an environmental protection agency to fund the cleanup of a site in order to save business a small amount of money in cleanup costs, while at the same time ignoring other sites that lie in residential neighborhoods and pose public health threats because there is little or no market demand for these properties.

Creation of an air-pollution hot spot as a result of brownfields redevelopment can be a major environmental problem in large cities. EPA, for example, has evaluated the air pollution impacts at a 138-acre, former Atlantic Steel site in midtown Atlanta. The agency concluded that the proposed housing development on the site would not produce an air-pollution hot spot and would actually reduce overall air pollution in the region. Such pollution is much less likely to be a problem in small and medium-sized cities, unless unfavorable local terrain could trap air emissions.

Brownfields sites in small and medium-sized cities present more localized environmental problems. The first concerns water. Brownfields sites in small cities are typically located next to rivers or, less often, next to a lake or over a groundwater aquifer. Great care is going to be needed to make sure that a planned development does not increase the threat to the water supply.

Second, especially after a major hurricane like Floyd, a great deal of thought should be given to the vulnerability to repeated flooding of some of the many brownfields located along rivers.

Third, the assumption often is made that an advantage of brownfields redevelopment over sprawl development is that brownfields areas have existing infrastructure. After visiting these nine cities, although we do not question the assumption that these sites have infrastructure, we do wonder whether the infrastructure is always adequate to handle the redevelopment. Local governments need to look hard at their actual capacity to deliver water, collect sewage, deliver energy, handle Internet messages, and provide other services.

Our fourth concern is that the demand for brownfield sites may be less than local officials perceive it to be. It is true that in major metropolitan centers, the real estate market is finding that cheap and easily convertible land is hard to find. Small and medium-sized cities are spread out and may be more desirable locations than major cities for large businesses because they are surrounded by the suburban residential neighborhoods desired by workers.

The demographic characteristics of the American population are changing. The majority of families have no school-age children to be concerned about and are more amenable to living in a small city or an industrial suburb that may not have the highest-rated public schools. Yet these advantages are countered by the fact that developers typically want large parcels on which they can build without being impeded by surrounding land uses. Some small and medium-sized cities have these sites, but many do not, and in fact their brownfield sites are disproportionately smaller, with many brownfields lying within residential neighborhoods.

It is going to be difficult to convince private developers to invest in these locations. The more likely future use of small brownfields sites is mixed-use projects that include commercial, residential, and recreational facilities, rather than the frankly grandiose ideas that many small localities have of giant shopping malls and large office buildings. The overall policy implication is that there really is a lack of knowledge about the likely demand for brownfields sites, especially in small and medium-sized localities.

While some states and cities have begun building GIS-mapped inventories of sites, real estate

developers are finding the data to be less useful than they expected, and most of the sites are not of much interest to them. The typical reasons are poor locations, undesirable sizes and shapes of sites, and the high costs of cleanup and demolition of structures.

Overall, the most salient observation of our study was that there was a tacitly understood hierarchy among cities with regard to brownfields redevelopment. Some are quite familiar with such jargon as "covenant not to sue," "no-further-action letter," and "deed restriction." The best of these small and medium-sized communities already have an overall plan that places brownfields in the context of a larger redevelopment plan.

Other communities have no ability to establish their eligibility for grants and to get their grant applications submitted on time. They have little ability to marshal adjoining land parcels that could be aggregated into a larger one that would attract investors. And they have no redevelopment plans for their jurisdictions.

So, while we will continue to hear about the successes enjoyed in New Jersey cities like Perth Amboy and Trenton, and while nationally elected officials will continue to visit these places to tout the triumphs of the national brownfields program, the other side of the reality is that we need to figure out ways of stimulating the nonparticipants into action.

Michael Greenberg, Ph.D., is professor and director of the National Center for Neighborhood and Brownfields Redevelopment at the Edward J. Bloustein School of Planning and Public Policy, Rutgers University, New Brunswick, New Jersey. K. Tyler Miller, Ph.D., and Karen Lowrie, Ph.D., are postdoctoral research associates of the center, and Henry Mayer, Ph.D., is the center's executive director.