Guest Editorial

Reversing Urban Decay: Brownfield Redevelopment and Environmental Health

Michael R. Greenberg

While the United States government concentrates more of its political and financial resources on fighting terrorism, the continuing decay of older cities and industrial suburbs has fallen far down on the national political priority agenda. An exception is the redevelopment of so-called brownfields, which are abandoned, idled, or underutilized factories, railroad yards, bus stations, garages, electricity-generating stations, and other commercial facilities. A modest national government program to identify, clean up, and redevelop brownfields into job fields began during the administration of Bill Clinton and has continued into the George W. Bush administration (Powers et al. 2000; Simons 1998; Van Horn et al. 1999). The political reasons are apparent: Developing brownfields is a politically acceptable method of stimulating private enterprise, local government, and community groups into building new businesses, housing, and community facilities. Also, brownfields projects have a beginning and an end; the national government does not have an indefinite responsibility. In contrast, social assistance programs that grew during the 1960s and proliferated for more than three decades have been politically portrayed by some as give-away programs that build dependency with no ending. Whether this characterization of social programs is morally or empirically justified, the reality is that in today's political environment brownfields redevelopment is a politically acceptable way of helping distressed urban areas.

The national brownfields program has spawned state progeny. States such as Massachusetts, Michigan, New Jersey, and Pennsylvania engage in friendly competition for the bragging rights to the most successful brownfields programs. Likewise, within each state, cities that were formerly known for drug-related homicides, car jackings, and burned-down buildings vie for attention as creators of taxable properties on former brownfields. In 1998, the U.S. Conference of Mayors declared brownfield redevelopment to be their highest priority for federal government support (U.S. Conference of Mayors 2000).

Public support appears to be strong because the U.S. public views brownfields redevelopment as a way to rebuild cities and reduce sprawl. For example, a November 2000 survey of 779 New Jersey residents found that 44% considered sprawl a "big" problem, and another 26% considered it a problem. More than one-half of these respondents believed that brownfields redevelopment is a viable solution for urban redevelopment and as a device to control sprawl. Furthermore, 14% of these respondents said that they were planning to move during the next 5 years and would be willing to live on a cleaned up brownfield site. Notably, most of these people were looking for small houses and bigger apartments, and without brownfields redevelopment they will move to suburbs to find them, which will further sprawl (Greenberg et al. 2001).

Even the normally skeptical mass media have supported brownfields redevelopment. A review of 160 newspaper articles in cities from Boston, Massachusetts, to San Francisco, California, and from Minneapolis, Minnesota, to New Orleans, Louisiana, showed that reporters consider brownfields programs a major improvement over the Superfund program, which they portray as having scared investors away from urban redevelopment (Greenberg and Lowrie 1999).

Health scientists who engage in brownfield redevelopment face three challenges. The first is time and financial pressure. For every brownfields site that is on 10 or more acres, is well located with respect to transportation and other infrastructure, and will host a redevelopment of ≥ $100 million, there will be 20 or more that will be on less than 3-acre sites located in an unfavorable location that has little obvious appeal to private investors. Federal and state governments will have to induce private and local government investments by providing tax breaks and starter money, including some subsidy of pollution cleanup costs. And, unlike Superfund sites, where years sometimes passed between government actions, building commercial properties and/or housing on brownfields requires a streamlined permitting process. It also will require the consideration of unusual proposals. For example, to make enough money to pay the cleanup costs, a housing developer can be expected to ask for more units per acre, for permission to put parking on top of areas with residual contamination, and for deed restrictions on the use of property. Environmental scientists working in state and local government may find brownfields cases placed at the top of their action list, with a demand for action in a matter of a few weeks or a month, rather than months or years. Environmental health scientists in companies will be pressed to develop and use monitoring equipment that provides quick and decisive information to investors. The development of miniaturized sampling equipment is being spurred by brownfield projects.

The second challenge is dealing with developers and local officials who have forgotten or are ignoring the reason that the U.S. Environmental Protection Agency initiated the brownfields program. From personal experience, I have learned that some local governments do not differentiate between brownfield and uncontaminated sites. For example, the fact that a project has a major plume beneath it and that the plume is draining into a river that feeds into a potable water supply will not discourage some developers from expecting environmental scientists to agree with redevelopment schemes that pose measurable public health and ecologic risks. Deed restrictions that require occupants not to dig underground or not to use basements for a bedroom may not be followed or enforced. Environmental scientists charged with evaluating proposals may be viewed as anti-redevelopment irrational conservatives when they raise objections to proposals. A good imagination is required to demonstrate the unsuitability of some development proposals. For example, in one case, we persuaded a number of local governments that their goal of turning all of their brownfields into commercial activities would lead to traffic congestion and parking problems along their narrow side streets.

The third challenge is dealing with project neighbors. In our public surveys, it is clear that the public does not necessarily trust its local elected officials' and developers' characterizations of environmental risk, nor their assertions that the local infrastructure and schools can meet added demands caused by redevelopment (Greenberg et al. 2001). People are most likely to trust government scientists and academic environmental health scientists who they believe have a bias toward protecting them, not toward making

money. From my experience in the role of "expert" at chemical weapon stockpile sites, electricity-generating facilities using nuclear fuels, and brownfield sites, I have learned that providing honest, concise information in often emotionally charged circumstances while facing unpredictable audiences and television cameras is a remarkable challenge to every bit of scientific and communication training we have. Despite the stresses, environmental health scientists need to participate in brownfields redevelopment because, at best, a brownfield site is a neighborhood black eye, and, at worst, it becomes a neighborhood "cancer," spreading its disease to surrounding properties and causing people and businesses with any options to leave the neighborhood.

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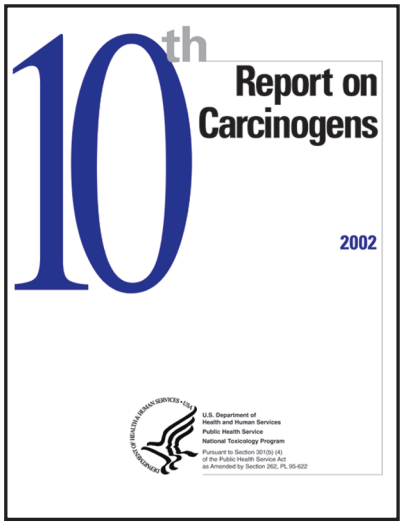

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