

**An Assessment of Brownfield  
Redevelopment Policies:  
The Michigan Experience**



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The PricewaterhouseCoopers Endowment for  
**The Business of Government**

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# Foreword

November 1999

On behalf of The PricewaterhouseCoopers Endowment for The Business of Government, we are pleased to present this report by Richard C. Hula, "An Assessment of Brownfield Redevelopment Policies: The Michigan Experience."

Professor Hula does an excellent job of describing Michigan's experience with implementing brownfield redevelopment policies. In this and other Endowment reports, we highlight state governments that are leading the way with innovative approaches to public sector activities, ranging from the delivery of services to regulation. Instead of the traditional "command-and-control" approach to government regulation, Michigan is experimenting with techniques such as incentives, public-private partnerships, and new sources of public funding in their brownfield redevelopment policies.

In addition to presenting recommendations for implementing brownfield redevelopment policies, Professor Hula's report also contains a provocative section on "Continuing Policy Dilemmas." Professor Hula wisely notes that while one can make judgments about the relative success of an innovative policy, it is ultimately the responsibility of governmental policy-makers to make decisions that resolve policy dilemmas. It is government policy-makers who must decide difficult questions of the public interest and the public good. We trust that both government executives (who implement public policy innovations) and government policy-makers (who make public policy) will find Professor Hula's report informative and helpful.

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# Executive Summary

Brownfield redevelopment has become an important theme in environmental policy as both federal and state governments rush to implement new programs to redevelop land parcels that are abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by a real or perceived environment contamination. Brownfield programs reflect a shift in the fundamental assumptions driving the design and implementation of American environmental policy since the 1960s. It is a shift not only in substantive policy, but includes a refocusing of authority.

Through brownfield redevelopment, a number of states are successfully challenging long established federal dominance in environmental policy. This report explores efforts by the state of Michigan to craft one such brownfield initiative. Although the primary focus here is the experience of a single state, the lessons learned from this case have national implications. Michigan is a leader in brownfield programs, but it is hardly unique. Many states are designing and implementing aggressive brownfield programs that challenge traditional federal policy. The impact of such programs will almost certainly have a profound impact on overall environmental policy in the coming years.

The brownfield initiative in Michigan has four major legislative components. These include:

- *Limited owner liability:* Purchasers of property that may be contaminated are no longer liable

for cleanup costs if they did not contribute to the original pollution on the site.

- *Increased flexibility in cleanup standards:* Property which is to be redeveloped for commercial or industrial use is subject to less demanding cleanup standards than would be required for residential development.
- *Increased reliance on private/voluntary action:* Developers have the primary responsibility to investigate contamination on their property.
- *Increased public funding for site assessment and remediation:* The state of Michigan has established a number of publicly funded programs to support brownfield redevelopment, including significant state bond funds, and the local capture of property tax increments resulting from successful redevelopment projects. Direct tax incentives are also available to businesses willing to locate on brownfield sites.

A review of a number of local Michigan programs suggests that changes in the legal framework governing brownfield cleanup and redevelopment have had a positive impact on a number of local economies. On the basis of these findings, five specific recommendations are made. These include:

*Recommendation 1:* Restrict liability associated with potentially contaminated land parcels.

*Recommendation 2:* Offer selective incentives to encourage the redevelopment of specific brownfield sites.

*Recommendation 3:* Allow local officials sufficient flexibility to respond to market-driven redevelopment opportunities.

*Recommendation 4:* Allow the use of institutional controls as a means to mitigate health risks from existing contamination.

*Recommendation 5:* Provide local jurisdictions with the flexibility to design and implement redevelopment plans that reflect local conditions and political culture.

The report concludes with a brief discussion of unresolved issues raised by the Michigan brown-field initiative. One set of these issues primarily focuses on the long-term impact of the program and can be best answered with further evaluation research. A second set of issues explores a number of broad policy choices presented by the initiative. These cannot be answered directly by further empirical work, but rather depend on the preference and vision of local political leaders. Specific questions of long-term impact include:

- Are current cleanup standards sufficient to protect public health?
- How stable are institutional property controls?
- Does brownfield development promote spontaneous economic expansion?

Broad policy questions include:

- What is the appropriate role of community preferences in selecting the use of a redevelopment site?
- How should policy-makers deal with demands for increased environmental justice?
- What is to be done with unsuccessful programs?



# Introduction\*

Brownfield redevelopment has become an important theme in environmental policy as both federal and state governments rush to implement new programs to redevelop land parcels that are “abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by a real or perceived environment contamination.”<sup>1</sup> A number of characteristics of these efforts are intriguing. Perhaps most interesting is the diverse coalition supporting brownfield redevelopment. It is a coalition that defies traditional expectation, cutting across political party, ideology, and region.

The problem set which brownfield redevelopment is thought to address is equally diverse. Obviously it includes site remediation, but also incorporates other important goals. For urban policy makers, the dedication of contaminated sites to future industrial and commercial use transforms brownfield redevelopment into an economic development tool. To the extent that brownfield redevelopment reduces development pressure on rural and agricultural

land, it serves as a greenspace preservation effort. Indeed, brownfields are seen by some as a means to achieve key elements of comprehensive land use policy without the need to actually impose direct regulation.

Brownfield programs reflect a shift in the fundamental assumptions driving the design and

## WHAT IS A BROWNFIELD?

The federal Environmental Protection Agency defines a brownfield as “abandoned, idled, or underused industrial and commercial facilities where expansion or redevelopment is complicated by a real or perceived environment contamination.”

Contamination at a brownfield site is insufficient to place the site in the federal Superfund program.

The actual level of contamination at brownfield sites is often unknown since the property has often been abandoned because of a fear about what “might” be on the site.

Estimates of the number of brownfield sites in the United States vary from 50,000 to over one million.

Brownfield sites are typically the responsibility of state environmental agencies.

<sup>1</sup> This is the definition of brownfields commonly cited by the federal Environmental Protection Agency (EPA). See Kaiser (1998).

\* This project would not have been possible without the generous support of The PricewaterhouseCoopers Endowment for The Business of Government. Preliminary funding was provided by the Michigan Applied Public Policy Fund. A special thanks is due to the many practitioners who graciously gave their time and insights to make this report possible. Thanks also to Brian McGrain for his able research assistance, and to Mark A. Abramson of The PricewaterhouseCoopers Endowment for The Business of Government for a careful reading of an earlier draft. Of course, any errors of fact or interpretation remain my own.

implementation of American environmental policy since the 1960s. It is a shift not only in substantive policy, but includes a refocusing of authority. Through brownfield redevelopment, a number of states are successfully challenging long established federal dominance in environmental policy. This report explores efforts by the state of Michigan to craft one such brownfield initiative. Although the primary focus here is the experience of a single state, the lessons to be learned from this case have national implications. Michigan is a leader in brownfield programs, but it is hardly unique. Many states are designing and implementing aggressive brownfield programs that challenge traditional federal policy (Consumers Renaissance Redevelopment Corporation, 1998). The impact of such programs will almost certainly have a profound impact on overall environmental policy in the coming years.

More than two dozen pieces of federal legislation regulate toxic materials in the United States. Of these, three define the broad regulatory framework that has controlled toxic substances for the past 20 years. They are the Toxic Substance Control Act of 1976 (TSCA), the Resource Conservation and Recovery Act of 1976 (RCRA), and the Comprehensive Response, Compensation and Liability Act of 1980 (CERCLA). Each is targeted to a different period in the life cycle of hazardous material. TSCA attempts to set out rules for the review and analysis of new chemicals. The goal is to identify dangerous chemicals as they are developed so that appropriate control strategies can be devised before they cause human harm. RCRA charges the EPA to develop standards for current waste management. CERCLA is targeted to the cleaning of existing toxic-waste sites. Together these laws create a complex network of regulations that attempt to control toxic materials from inception to disposal.<sup>2</sup>

The largest and most controversial of these efforts is CERCLA. Generally known as Superfund, CERCLA (and its 1986 reauthorization, Superfund Amendments and Reauthorization Act, SARA) outlines the general parameters of toxic-waste-cleanup policy in the United States. Key to understanding CERCLA is its focus on central (federal)

<sup>2</sup> For a more complete discussion of RCRA and TSCA see Rosenbaum (1995, p. 232-262).

### KEY ADMINISTRATIVE CHARACTERISTICS OF SUPERFUND (CERCLA)

<b>Goals</b>	Land-based toxic contamination is defined as a public health issue.
<b>Responsibility</b>	Federal authorities are assigned to lead efforts to clean toxic-waste sites.
<b>Response Model</b>	The EPA is given authority to act quickly in cases where the public health is threatened. In such cases the initial cleanup can draw on interim public funding.
<b>Liability</b>	Places responsibility for paying cleanup costs squarely on those who caused the contamination
<b>Bureaucratic Organization</b>	Regulations are framed within a traditional command and control structure.

decision making, the legislative commitment to restoring sites to a "natural" condition, and the assumption that those responsible for pollution are responsible for all costs associated with cleanup. CERCLA has been mired in controversy since its passage. Currently debates are occurring within the EPA, in Congress, and in various state houses across the country as to how toxic-waste policy might be revised.

At the federal level there are efforts within both EPA and Congress to restructure important elements of toxic-waste policy. Policy entrepreneurs within EPA have sought to mute public criticism of CERCLA through a number of administrative reforms and public relations initiatives. For example, independent of legislative mandates, the EPA has sought to soften some elements of the CERCLA liability standards. Beyond efforts to improve the agency's processing of Superfund sites, the EPA has also begun to implement an interesting shift (or least an expansion) in CERCLA goals by initiating a number of pilot efforts to encourage the redevelop-

ment of less contaminated sites that do not qualify for CERCLA intervention.

Federal brownfield initiatives modify past toxic-waste policy in a number of important ways. Unlike Superfund sites, brownfields are seen in much more instrumental terms. That is, decisions to invest in a brownfield cleanup are driven not so much by the level of on-site contamination, but by the economic potential of the site. Thus, estimated economic viability of the redevelopment plan is a key factor in evaluating applications for EPA brownfield pilot programs.

Unlike much of the history of Superfund, the design of the EPA brownfield initiative is based on cooperation, consensus, and self-interest. The command-control logic that drives Superfund cleanups has largely been replaced in the brownfield initiative by voluntary agreements backed by grants and tax credits. Funding is based on incentives rather than a punitive liability scheme.<sup>3</sup> A striking aspect of the Brownfield initiative is the explicit acknowledgment of the leading role of state and local officials in cleanup efforts. Some regional EPA offices have been particularly aggressive in allowing state authorities to take a leading role on specific sites. This increased federal flexibility has been instrumental in promoting state-level innovation in brownfield policy.

Congressional dissatisfaction with CERCLA is dramatically revealed in its repeated failure to reauthorize the legislation. The taxing authority that financed the Superfund expired in 1995, and no one has yet been able to form a coalition capable of passing a revised CERCLA. Currently the future of reauthorization remains unclear. However, the concept of brownfield redevelopment clearly enjoys strong support in Congress. A good deal of additional legislation to support brownfield programs has recently been introduced. However,

<sup>3</sup> *Congress has observed this shifting set of goals with some ambivalence. On one hand, there is wide support for the overall concept and direction the EPA has taken. However, some concern has been expressed that EPA has moved beyond its statutory authority in using CERCLA trust funds to implement certain aspects of the brownfield effort. For example, Congress expressly prohibited the EPA from using any of its resources to underwrite local and state revolving loan funds to finance actual cleanup on brownfield sites. See United States General Accounting Office (1998), and Reisch (1998).*

most has been stalled by the continuing debate on CERCLA reauthorization.

In spite of announced EPA policy changes, many state and local policy makers remain skeptical. They see the federal program as continuing to be too rigid and overly adversarial. They remain critical of CERCLA's history of huge administrative and legal costs and very modest record of completed cleanups. Recent federal initiatives are seen as ineffective and half-hearted efforts targeted to the margins of toxic cleanup policy. As a result, many state authorities have initiated brownfield programs at the state-level. A recent review of such efforts identified 41 states that had significant voluntary cleanup/brownfield redevelopment programs (Consumers Renaissance Redevelopment Corporation, 1998). Eleven of these states have signed memoranda of agreements with the federal EPA in which federal authorities essentially agree to grant the state full authority over all non-Superfund sites that enter state-run programs. These state programs provide an important laboratory for future environmental policy in the United States.

## STUDY OBJECTIVES AND METHODS

This report is primarily based on 24 semi-structured field interviews of practitioners active in brownfield redevelopment.

Four general groups were sampled: local-level officials (some were sponsors of Brownfield Redevelopment Authorities, others were active in the authorities themselves), legislative actors who crafted the legal framework for the brownfield program, state-level officials in the Michigan Department of Environmental Quality charged with state-level program implementation, and private developers active in specific redevelopment projects.

Although the interview schedule was modified for particular groups of respondents, a number of issues were discussed with all. These include; (1) a general sense of how the state brownfield program operates; (2) an evaluation of how well the program works (including a review of specific projects), and; (3) thoughts about how the program might be improved.

# The Michigan Experience

In contrast to the deadlock in Washington over broad toxic-waste policy, the state of Michigan has implemented one of the most comprehensive state-level programs to encourage brownfield redevelopment. The policy has been created through new laws passed by the state legislature as well as a number of executive actions taken by the governor. While these changes were justified, in part, as an effort to improve the cleanup capacity of the state, there is little doubt that the changes also reflect a new political agenda. No longer would cleanups be the unitary variable driving environmental policy. The connection of environmental and economic development goals has been made quite explicit by Michigan's Governor John Engler:

The cornerstone of any urban revitalization strategy must be an aggressive brownfield redevelopment program. We have made brownfields attractive by reforming the cleanup laws and offering tax credits and low interest loans to our communities. More than anything, our success comes from making brownfield redevelopment a top economic and environmental priority in the state of Michigan. (Consumers Renaissance Redevelopment Corporation, 1998).

Although the changes in Michigan environmental policy are broadly consistent with new federal initiatives, the magnitude of the state changes is much greater. Each of these policy innovations is a fairly

direct effort to respond to long-standing criticisms of federal policy.

## Liability Protection

The most fundamental contrast between Michigan and federal policy is that of liability. Basically, the state has incorporated the key features of past covenants not to sue into a relatively automatic framework. If a landowner is not responsible for site contamination, then he or she is not liable for a cleanup.<sup>4</sup> For parties responsible for the original contamination, liability remains in force. Indeed, current law has created a new affirmative responsibility of landowners to identify and remediate contaminated sites. The Michigan Department of Environmental Quality (MDEQ) is empowered to seek penalties and fines of up to \$10,000 a day from any responsible party if they have not "diligently pursued" the cleanup of contaminated sites which they own.<sup>5</sup>

<sup>4</sup> Michigan actors note that there are two major elements of liability that continue to retard redevelopment of brownfield sites. Both are associated with CERCLA liability. Obviously the state cannot grant immunity from federal action against property owners. As noted above, the EPA has reduced these concerns by entering a set of agreements not to sue based on a lack of responsibility for on-site contamination. A second concern is the potential of responsible parties to bring suit against new owners under CERCLA liability. Interestingly, while this concern is widely cited as a block to redevelopment, there seems to be no reported instance of such suits actually being filed. See Environmental Financial Advisory Board(1998).

<sup>5</sup> Such penalties can also be assessed to new landowners if the new owners do not take steps to identify and report current levels of site contamination. See Woodruff et. al.(1998).

## KEY ELEMENTS OF MICHIGAN BROWNFIELD POLICY

Innovation	Description
Liability protection	Prior to the 1996 Natural Resources and Environmental Protection Act (NREPA) amendments, Michigan statutes followed the federal lead in imposing a strict liability framework for site contamination. This essentially held that ownership of a property carried with it the liability for cleaning that site. Changes in the law now allow purchasers to escape liability for contamination for which they are not directly responsible.
Increased reliance on private/voluntary action	New owners of potentially contaminated property can secure exemption from cleanup liability by filing a Baseline Environment Assessment (BEA) with the Michigan Department of Environmental Quality. This baseline data is to serve as a basis from which to evaluate state claims against the landowner. The completion of the BEA is largely a private action, with limited state oversight.
Flexible cleanup standards	Brownfield redevelopment rests on the assumption that contaminated properties ought to be cleaned to levels appropriate for future use. Industrial properties need not be cleaned to residential levels. This introduction of differential cleanup standards represents a significant departure from earlier environmental regulations, which demanded a total removal of all contaminants.
Public funding	The Brownfield Financing Act (1996) permits municipalities to create Brownfield Redevelopment Authorities. These authorities are allowed to dedicate state and local taxes generated by the redevelopment into financing remedial cleanup action on the site. Developers are also granted a tax credit on their single business tax. In addition, the state has dedicated a total of \$335 million in bond funds for brownfield redevelopment.

## Private/Voluntary Action

To avoid liability, new owners of potentially contaminated property are required to perform a Baseline Environmental Assessment (BEA) on their property. The BEA is an assessment of existing contamination levels on the property. The result of this assessment must be filed with the MDEQ within 45 days of the purchase, occupancy, or foreclosure, whichever comes first.

New owners have full liability for contamination beyond that reported in the baseline assessment.<sup>6</sup> Owners have the option of filing a petition with MDEQ requesting written documentation that they qualify for the liability exemption. This petition may also request a determination that the owners' proposed use of the facility is consistent with statutory demands that land-use not exacerbate contamination at the site.<sup>7</sup>

## Flexible Cleanup Standards

The state has also reconfigured cleanup standards. A key element of this change is tying the level of cleanup to the proposed use of the land. Thus, MDEQ has created separate standards for residential, commercial, or industrial properties. Not surprisingly, the commercial and industrial standards are less demanding than those for residential development.

In an effort to simplify the requirements for redevelopment, the new standards are general for the state, rather than being tied to a site-specific risk analysis. As part of the reconfiguration, overall risk

standards were reduced. For example, the cleanup levels for known carcinogens have been set at a risk level of 1:100,000 rather than the earlier standard of 1:1,000,000. Groundwater cleanup standards have also been revised to what are generally less stringent levels. Finally, the state has recognized institutional controls on land use as an acceptable alternative to cleaning a site to the highest possible standard.

## Public Funding

The state has also developed a number of alternative sources of financing for local brownfield projects. Although Michigan law has increased public resources for site redevelopment, funding is typically not from general funds; rather, specific revenue streams have been directed to redevelopment efforts. Two revenue sources are of particular importance: Brownfield redevelopment authorities, and the Clean Michigan bond issue.

Michigan law permits municipalities to create a brownfield redevelopment authority (BRA). These authorities create a specialized institutional structure to promote local planning and implementation of brownfield redevelopment. The Brownfield Redevelopment Financing Act grants authorities a number of fiduciary powers including paying or reimbursing private or public parties for cleanup activities; leasing, purchasing, or conveying property; accepting grants and donations of property, labor or "other things of value" from public or private sources; investing the authority's money; borrowing money; and engaging in lending and mortgage activities associated with property it acquires (Davis and Margolis, 1997). Authorities may also create revolving loan funds to finance projects.

Each authority must develop a plan for redeveloping eligible properties within its jurisdiction. Elements of this plan include the identification of specific target parcels in the district, a comprehensive financial plan, and strategies for dealing with possible citizen displacement resulting from redevelopment efforts. The brownfield plan must be approved by the chartering municipality before tax increment financing is available to the authority. School tax increments become available only after the Michi-

<sup>6</sup> *The BEA filing essentially replaces a much more complex process in which a developer might escape liability. Prior to the amendments to Part 201 the only way to relieve a developer/purchaser from liability from existing contamination was a "covenant not to sue." This was almost always a very slow and complicated process. For example, between 1991 and 1995, only 37 such covenants were implemented. See Michigan Department of Environmental Quality(1996).*

<sup>7</sup> *Note that while new owners are no longer responsible for site cleanup they are required to meet the "do-care" requirements that the public be protected from contamination. Indeed, such "do-care" requirements have been extended to all owners of contaminated sites. This actually represents an extension of past liability in that potentially responsible parties now have an affirmative responsibility to show "due care" whether or not the site has been identified as a potential public health threat by some public agency.*

gan Department of Environmental Quality has approved the plan.<sup>8</sup>

Brownfield redevelopment authorities have the legal capacity to raise revenue in several ways. They are permitted to capture increases in state and local (including school) taxes that result from the redevelopment of a brownfield. These tax increment funds can be used for evaluation and feasibility studies of specific sites, on-site demolition of buildings, necessary on-site construction, and for the combining of contaminated property with adjacent parcels. The existence of an authority allows a developer/taxpayer a tax credit on Michigan's single business tax (limited to 10 percent of capital investment or an absolute cap of \$1million).<sup>9</sup>

A recent state bond issue provides a second important funding source for brownfield work. In 1998 Michigan voters approved a \$675 million environmental bond issue, Clean Michigan. The bond issued included \$335 million that was targeted directly to brownfield remediation. There will be a number of ways in which local authorities will be able to access these funds. Some projects will be directly funded by the state. These sites will be selected from a set nominated by local authorities.<sup>10</sup> Other funds will be allocated through several remediation and assessment programs administered by the Michigan Department of Environmental Quality. In addition, grant funds from a number of other state agencies have often been used to support specific projects.

<sup>8</sup> *Unfortunately, these plans reveal less than might be expected. A number of jurisdictions have adopted a strategy of including a parcel into their brownfield plan only after they have identified a developer interested in the property.*

<sup>9</sup> *Woodruff et. al.(1998) suggest that even if the municipality is unable or does not want to capture tax increments, the single business tax credit is cause enough for the municipality to form a Brownfield Redevelopment Authority. Field interviews show that some BRAs have been formed primarily to have local business qualify for the single business tax.*

<sup>10</sup> *MDEQ accepts local nominations, develops a ranking, and submits a priority list to the state legislature. The legislature either modifies or accepts DEC recommendations. Respondents at MDEQ report that they could not remember when the legislature had not followed departmental recommendations under an earlier bond issue. Some concern was expressed that this pattern might change as the brownfield initiative has significantly expanded the criteria for project selection. Thus creating a basis for political disputes.*

# Implementing Michigan's Brownfield Program

The design of the Michigan brownfield initiative requires the cooperation state government, local government, and private developers. Thus, the substantive impact of changes in Michigan toxic-waste policy depends on three broad implementation issues. First, do state policy makers have the capacity to reorient key state bureaucracies to support revised programmatic goals? Since the brownfield program does not require local action but only encourages it, program outcomes also depend on local interest and capacity to implement a redevelopment effort. The willingness of the private sector to invest in brownfield properties defines the final and key link to program success.

## The Role of State Bureaucracy

Michigan's brownfield initiative challenges responsible state administrators in a number of important ways. First is the clear shift in the focus of toxic-waste policy. As noted above, the introduction of economic development as an important component of toxic-waste policy represents an expansion of formal agency goals. Related to this change in substantive focus is a shift in role. Prior to the brownfield initiative, state environmental staff was largely seen as an enforcement agency. More recently, state staff has been defined as facilitators promoting economic development. Rather than imposing solutions on target communities, state environmental actors are now expected to nurture cooperative links across the public and private sector.

A key issue is whether there has been a real change in the behavior of state-level bureaucrats charged with implementing toxic-waste policy. Certainly the notion of mission or agency culture is, at best, difficult to define and measure. Yet, speaking to individuals working in and with the Michigan Department of Environmental Quality (MDEQ), it is difficult not to feel that a mission shift has occurred. Asked about how the department achieved this culture change, a senior administrator in MDEQ remarked:

A really good word would be "challenging." We are on this payroll to implement laws passed by the legislature. The new law required us to take a new approach. Our focus is still getting property cleaned up so that it is safe for the people that use it. But because the law is aimed at a land use...we've had to start retraining ourselves to consider a developer view.

Elected state political authorities, particularly those in the governors' office, put a good deal of pressure on agency staff to change environmental enforcement procedures. Pressures were also quite explicit in the department:

If you feel that as an employee of the department that there are certain things that need to be done to protect the environment, including cleaning up a property or groundwater, to the point where it can



be put to use because that's the way it should be, you are in the wrong department. You don't fit in anymore. And, in fact, if you maintain that outlook, some sort of action will be taken to either move you to a less sensitive job, or some encouragement to change your outlook of one form or another, because it doesn't work in this program. And I would say, that it is better now than it was. We are getting more done and providing as much protection. The difference is that if you have a view that contamination that we put there has to come out in order to make it right, that viewpoint doesn't work anymore.

Compliance was enhanced by two rather dramatic administrative strategies. In an effort to reduce the state workforce, employees were offered an attractive early retirement package. Not surprisingly, observers report many of those who were most opposed to the governors policy initiatives chose to leave state government. In addition, the governor reorganized executive departments so that environmental regulation would be centered in a new Michigan Department of Environmental Quality. Obviously the new department had many workers quite familiar with traditional environmental regulation. However, these workers were joined by a set of state workers more focused on community development:

This happened at the same time that there were changes in other Michigan departments. As you know, the Michigan Department of Commerce used to handle both industrial and community development issues. When the Department of Commerce split, the majority of the people went to the Jobs Commission to focus on industrial development and not community development, not retail, not downtown activities, not tourism and such. And so there was a concern about community development at the same time there was a switch in the environmental law that allowed individuals to look at community development sites. Almost by default...the Department of Environmental Quality became the Community Development

branch of the State of Michigan, because nobody else was doing that. It actually was a good fit because we were now looking at the cleanup based on what the land use was going to be.

The result has been, at least, a formal compliance with the new environmental policy. For many employees of the MDEQ there seems to be a genuine commitment to the new departmental goals:

I think there's no question there's been a major culture change. When it first came about, there wasn't unity in the way we were heading. I think it's an evolutionary process. Once you see what you can do and see the rewards of what you've created, it becomes a hell of a lot more palatable to follow that same path. We've evolved to the point where we are because we've had a lot of success stories.

Both central and regional office personnel are anxious to frame their actions both in terms of economic development and environmental protection. There is no question that environmental protection remains a key value for MDEQ. It clearly is. But it is also clear that other values are also now important. A number of observers across the state acknowledged this. One local development specialist captured this view when he tried to summarize how MDEQ has changed:

They realized that for whatever reasons, they really stood in the way of economic development for years and there were ways that they could partner with business and industry and still achieve their initial goals of protecting the environment and human health and safety without being a burden and a hindrance to business. And so a lot of people call the Department of Environmental Quality today the "Department of Economic Development," because they wholly, at least at the upper administrative levels, totally embraced the idea of doing whatever it takes to encourage business while still protecting the environment.

## The Role of Local Political Authorities

Local political leaders have been important supporters of the Michigan brownfield initiative. A mayor of one of Michigan's older industrial cities described the important role that the state mayors played in supporting the effort.

The urban-core mayors were the key allies of the governor in changing Public Act 305. We carried the water for him. So we saw ourselves as key players. It was important for him, it was important for us. He needed something for the environment, and it was a safe environmental issue for him, because he had all these urban Democrat mayors carrying the water. I considered the state on this issue to be an ally, and this is a tool that they have helped create. And it is an important tool and it has been helpful.

We (the mayors) supported the Clean Michigan Initiative. I went out there and cut TV ads; all of the urban mayors did that in the regions. So we wanted to put our imprimatur on it.

Data collected from local government authorities picture an enthusiastic response to opportunities created by state brownfield statutes. In July of 1996, the MDEQ published an initial one-year evaluation of the new redevelopment policies based on an informal telephone survey of 40 municipalities (Michigan Department of Environmental Quality, 1996). Of the 33 responding cities, 29 claimed an increased interest in redeveloping contaminated properties in their cities. Twenty municipalities reported a total of \$221,573,000 in private investment and the creation of 2,379 new jobs.

In a follow-up survey in June of 1999, 23 authorities (out of a total of 115) reported \$93,100,000 in new industrial investment, \$149,600,000 in new commercial investment, and \$106,750,000 in new residential investment (Michigan Department of Environmental Quality 1999). Municipal spokesmen attribute this increased investment to the new liability protection and revised land-use-based cleanup standards. One local official noted that the program

had changed how the city viewed brownfields: "We now have this ethos where we believe that our brownfields are assets."

Further evidence of local enthusiasm for brownfield redevelopment is provided by the speed at which eligible local government units have created Brownfield Redevelopment Authorities. As of January 30, 1998, 59 municipalities had created authorities. By June of 1999, 121 authorities were operating in the state. While the creation of a BRA is only a first step in creating an active local program, it does strongly suggest that municipal authorities are anxious to begin the process.

Even more than their state counterparts, local officials have accepted the important role of private investment in brownfield redevelopment. One official described the planning process for the city's brownfield program as follows:

One of the first things that came out of those meetings was everybody agreed that the economic development part of the program is going to drive the environmental cleanup. Everybody realized that we couldn't just go and pick a site and start cleaning up for no reason if the site doesn't have any basis for development or any business interest.

Although there is broad agreement on the general assumptions of the program, there is significant variation in how the program was administered. A review of local programs shows that local jurisdictions have used the program's flexibility to construct a number of alternative implementation strategies. Significant structural variation exists across the state on at least two important dimensions: implementation agencies and program scope.

Municipalities have assigned brownfield redevelopment to a variety of agencies. Some jurisdictions have centered their efforts in established line departments, usually planning or economic development offices. Others have experimented with a remarkable degree of privatization. In one case, the local brownfield authority is staffed completely by private employees of the local Chamber of Commerce. Specific programs also vary in geographic

<b>ALTERNATIVE LOCAL IMPLEMENTATION STRATEGIES</b>		
	<b>Implementation Agent</b>	
<b>Focus</b>	<b>Public</b>	<b>Private</b>
Local	Administered by standing city agency. Focus within city boundaries.	Administered by private sector (or public-private partnership). Focus within city boundaries.
Regional	Administered by standing city agency. Regional focus.	Administered by private sector (or public-private partnership). Regional focus.

scope. Some cities focus their efforts within city boundaries. Others see redevelopment as more of a regional issue, and therefore focus their efforts through regional-level organizations.

There are two important points to be made about these implementation strategies. First, the distinctions are not simply theoretical. There are examples of active programs in each cell. Even more important is the finding that local officials report success using each type of model. Thus, "best practice" varies from site to site. Such findings do not suggest that state and federal officials should give up oversight efforts in the name of local autonomy, but they do argue for an increased reliance on outcome assessment and greater tolerance of alternative implementation strategies.

### **The Role of Private Actors**

A final assumption embedded within the Michigan brownfield effort is that, given the right set of incentives and protections, private sector actors will become active in brownfield redevelopment. Note this expectation is not based on any appeal to civic obligation or good citizenship, but simply on the claim that brownfields are sound business investments. Once again, there is some modest evidence that the effort has been successful. For example, the relatively high rate of Baseline Environmental Assessment (BEA) filings gives clear evidence that there is significant economic demand for some potentially contaminated properties. By July 1996 the MDEQ reported that 425 Baseline

Environmental Assessments had been received. This was 10 times the total number of property transfers brought about by negotiated covenants not to sue for the previous five years. Moreover, BEA filings continue to increase. By April 1999 MDEQ had received a total of 2,635 applications (Kummler and Card, 1999).

Not surprisingly, the willingness of private developers to become involved in brownfield projects is very much tied to the perceived economic opportunities that specific projects present. A number of redevelopment officials observed that developers in general are very sensitive to new investment opportunities. Following the passage of legislation promoting brownfield work, some developers independently sought out city officials to identify brownfield opportunities. When asked how the city identified potential developers, one economic development specialist admitted:

We haven't really had to do any formal marketing yet. It is interesting that as state-issued environmental cleanup guidelines have changed, and their various programs have come to be, the state goes to a lot of conferences around the state inviting developers, environmental consultants, and attorneys and so forth. The state runs conferences, private sector consultants run some, attorneys sponsor some, and we've gone to a fair amount of those, spoken to a fair amount of them, and we've gotten a lot of attention that way.

In areas where the local economy is particularly robust, brownfield specialists report that redevelopment is occurring with relatively little public intervention. Revised liability and cleanup standards have apparently promoted a sharp increase in entirely private redevelopment projects. One city redevelopment official expressed frank surprise at the willingness of private developers to take advantage of the new regulatory climate independent of city assistance:

With the publicity associated with the creation of the authority, we thought that there was going to be more interest by companies wanting to utilize the authority in one way or another. That has not proven to be the case. The real estate development community comes across stuff. They just say...we'll deal with it. We don't need you. It's reassuring ...I think, of the free enterprise system, where they say we will deal with it, ...thanks for the offer. We'll deal with it. We'll take care of it, and the cost associated with the baseline work, and the remedial efforts that need to be done they just do it and pass the cost on. They absorb the cost. It's a transactional cost associated with the development or redevelopment of a piece of property. It's very gratifying in most instances. In spite of what we have done, they just plod ahead. "Thanks but no thanks. We'll take care of it."

More often, however, local authorities actively recruit developers. One developer commented:

I've got a dozen proposals sitting back here; the city of this, the city of that — trying to contact developers to get them to come in and build something in and around vacant land, old, deserted, demolished or, empty buildings from downtown. We've got the city of...after us because we just bought a building down there, and they want us to look at some other opportunities. The economic development people are trying to get people into their area, and they latch onto developers all the time. We get proposal after proposal. "We want to build a shopping center, we want to build an outlet center, we want to build

this, we want to build that, would you be interested," that type of thing.

Asked whether he would be willing to become involved in a brownfield project, a developer was clear about the decision rule for his company:

Depends on the piece. If we think it's a good location — and that's the beauty of the brownfield areas, is that they are in good locations — if it's a good location and we can fill a need of the city, why not? It just depends on how much you're going to put into it. We'll look at any opportunities.

The strong interest in brownfields expressed by developers, combined with the relatively high rate of BEA filings, suggests that a significant number of sites are being redeveloped independent of public sector intervention. This would seem most likely for those sites where the actual level of contamination turned out to be modest. Unfortunately, there is no reliable data available to either confirm or disconfirm this hypothesis.

It is clear that where the local economy is weak, there is relatively little interest on the part of developers to invest in brownfield property.<sup>11</sup> Current incentives are simply insufficient to attract such interest. At a minimum, these communities will require a deeper public subsidy to entice private sector investment.<sup>12</sup>

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<sup>11</sup> *There is an interesting exception in some very depressed communities. Some large corporations that have in the past engaged in significant disinvestment in the community, but retain a presence, are sometimes willing to make community investment beyond what one would expect from straightforward market calculations. Note that such corporate "citizenship" is both limited and relatively rare.*

<sup>12</sup> *In some of Michigan's poorest communities there remains a strong emphasis on more traditional federal aid programs to promote economic redevelopment. Relatively large federal investment can be seen as a means to secure these relatively large subsidies.*

# Recommendations

Policy evaluation seldom offers definitive results. The world is simply too complex to identify strong and unambiguous causal linkages. Nevertheless, the Michigan brownfield initiative does offer some important insights about the impact of specific toxic-waste policies on redevelopment efforts. Such insights do lead to a set of concrete recommendations as to how state and local officials can encourage the redevelopment of brownfield sites.

However, decisions to implement such recommendations will inevitably lead to tradeoffs with respect to other reasonable policy goals. It is essential that policy evaluation not only specifies positive policy outcomes, but also illuminates these tradeoffs.

## **Recommendation 1** **Restrict liability associated with potentially contaminated land parcels.**

The notion that those who pollute a site should be responsible for cleaning it has served as a key element of national toxic-waste policy for almost 20 years. It is an intuitively appealing approach that attempts to tie liability with responsibility. However, in practice the application of such strict liability has raised a number of questions. Some center on the practical difficulties of implementation. For example, most sites had multiple sources of pollution. In such cases, how does one allocate responsibility for cleanup costs? Indeed, it is often difficult to even know who contributed to the pollution of a

site. It is also impossible to sanction responsible parties that no longer exist. The fairness of strict liability has also been questioned. Many argue that if actions were legal when they were performed, it is unreasonable to declare them illegal at some later point. Critics also argue that it is unreasonable to assess the full cost of a cleanup to what is almost always a subset of guilty parties. Finally, many question whether ownership alone should create a liability for the actions of others.

A less discussed critique of strict liability is the fact that it creates a set of severe negative externalities that impose significant but unintended social costs on the community in which the property is found. This claim is based on the view that strict liability creates a negative incentive structure that virtually force developers to not even consider siting projects on older industrial or commercial sites. Rather, projects are targeted to previously undeveloped properties.

The argument as to why this occurs is straightforward. It is simply not rational to site a project on property that may carry a significant liability when other available properties have no such risk. Indeed, even if a developer had an interest in a potential brownfield site, owners of that property may be unwilling to sell the property since liability for site cleanup remains with past owners even after the property is sold. As long as there is a possibility that a major cleanup will be required, economic rationality demands that the property simply be left

unused. Note that this logic would apply not simply to sites with known significant contamination, but to all sites with possible contamination. Essentially this predicts the collapse of the commercial and industrial real estate market in older industrial cities.

The Michigan brownfield initiative provides convincing evidence that such externalities do exist. Certainly providing liability protection for new property owners has had the effect of revitalizing a long dormant urban real estate market. The large number of Baseline Environmental Assessments filed with the Michigan Department of Environmental Quality documents a sharp increase in market exchanges. Interestingly, the BEA statements reveal many of these properties had only modest environmental problems. This gives further support to the notion that strict liability depresses the entire market for older industrial and commercial properties, including many parcels without significant environmental problems.

It is important to stress that this finding does not lead unambiguously to a recommendation for relaxed liability in toxic-waste cleanups. As noted, important tradeoffs often cannot be avoided. The Michigan Brownfield initiative illustrates that these tradeoffs may be quite complex. A decision to impose cleanup costs on “guilty parties” also imposes a set of broad social and economic costs to a much wider population in terms of a collapsed real estate market and forgone economic opportunities. Whether that cost is justified remains a political decision to be made by responsible policy makers.

## **Recommendation 2**

**Offer selective incentives to encourage the redevelopment of specific brownfield sites.**

Michigan’s financial commitment to its brownfield initiative makes it stand out from efforts of other states. Financial incentives included substantial bond funds targeted to assessment and remediation, authorization for local governments to use increment tax financing to support remediation, and direct tax incentives for businesses willing to develop brownfield sites. There is a widespread perception at the local level that if such funding were not available, a significant number of brown-

field sites that have been redeveloped would have remained derelict. A number of localities have particularly promoted the reduction in the state’s single property tax in seeking to persuade businesses to explore the potential of brownfield locations.

## **Recommendation 3**

**Allow local officials sufficient flexibility to respond to market-driven redevelopment opportunities.**

Federal and state environmental officials often maintain that the design and implementation of site redevelopment projects should occur within the framework of an overall development plan. The Michigan brownfield initiative provides a contrast to this public rhetoric. With its focus on private sector investment, the initiative gives little encouragement to comprehensive community planning. Projects are typically designed and implemented on a parcel-by-parcel basis. Project selection is driven more by developer preferences than local strategic objectives.

Indeed, this focus is institutionalized in a number of state brownfield assessment and cleanup programs that require local authorities to identify an interested developer before funds can be allocated to a proposed project. There is no empirical evidence that the parcels most attractive to that private sector are those of greatest concern to the community. Moreover, given that the proposed end use is driven by economic return, there is little reason to assume that such a use would be consistent with the overall preferences of the community.

The Michigan brownfield initiative has created, or in some cases reinforced, a set of cooperative linkages between state and local development and environmental officials. In some communities it has also reinforced ties between political decision-makers and private sector developers. These linkages expand the capacity of local government to promote the sort of public-private ventures that drive the brownfield initiative. However, they tend to de-emphasize the traditional planning function within local government. In addition, efforts to promote community engagement in brownfield redevelopment are quite modest, most often taking the form of “informational” community meetings.

## **Recommendation 4**

**Allow the use of institutional controls as a means to mitigate health risks from existing contamination.**

The amount of actual cleanup work at most projects generated by the Michigan brownfield initiative has been actually quite modest. This is due to a set of three interrelated factors. First is the somewhat surprising finding that a relatively large proportion of the brownfield sites actually have had less contamination than expected. A second important factor is that new state standards require less rigorous cleaning. Finally, where contamination does exist, developers almost always rely on institutional controls rather than actual site cleanups to meet state environmental standards.

The logic of this process is clear. As private economic actors, developers seek to minimize costs whenever possible. Direct costs generated by institutional controls are almost always less than actual site cleanups. Thus, it is logical to use such controls even if there might be a significant long-term social cost in doing so. This is not to suggest that developers act headless of community interest and the common good. Rather, they are responding to strong structural pressures to minimize their own costs.

The reliance on institutional controls reveals some tension between a brownfield program that emphasizes public health and one that focuses on economic development. Institutional controls do reduce short-term costs, and they seem to promote economic development. Less clear are the long-term public health implications of such controls. This policy dilemma raises an important set of unresolved issues that are discussed further in the next section.

## **Recommendation 5**

**Provide local jurisdictions with the capacity to design and implement redevelopment plans that reflect local conditions and political culture.**

Local governments have adopted a wide variety of implementation strategies in their redevelopment efforts. For example, in traditionally conservative areas of the state, an effort has been made to not only engage the private sector, but to have private actors assume strong leadership roles in the pro-

gram. In other cities, public officials have taken key leadership roles. Sometimes leadership is provided by the traditional planning or economic development department. At other times it is located in other city agencies. Where regional cooperation is common, brownfield programs are often regional in scope. Where regional cooperation is less common, programs are more likely to focus on a single jurisdiction. An important finding of this review is that no single approach stands out as most effective. The best programs are those designed with an eye to local conditions and preferences.

The ability and willingness of local jurisdictions to design their brownfield programs lends support to the general decentralization assumptions built into the state initiative. It suggests that future state policy should continue to be directed to desired outcomes, without an exact specification of how local governments are to reach these goals. These findings also support similar federal decentralization efforts. However, state and federal officials must continue to have an oversight role since not all local programs are successful. Indeed, the development of effective oversight and evaluation tools is a critical task if policy decentralization is to continue.

# Continuing Policy Dilemmas

## Long-Term Empirical Questions

The Michigan brownfield initiative raises a number of unresolved policy questions. First, there remain a number of empirical questions about the long-term effectiveness of specific policies. These issues can be clarified by a continued monitoring of efforts like the Michigan initiative. Three important evaluation issues are listed below:

### **Are current contamination standards sufficient to protect public health?**

The key to spurring economic development projects has been cutting developers' costs in meeting state environmental standards. These cost reductions have been achieved through an overall lowering of standards and an increased use of institutional controls as an alternative to actual site cleanup. There is little question that these changes have reduced developer costs. Less clear, however, is the adequacy of the new standards to protect public health. While most public and private officials maintain that existing standards will protect human health, this view is not universally shared. A few officials noted with concern that standards had been lowered with relatively little scientific evidence to support such changes.

### **How stable are institutional property controls?**

Institutional controls through land-use, zoning, and on-site construction (such as parking lots) provide an important means to reduce the cost of redevelopment. Currently neither the federal government

nor the state government has much experience in maintaining such controls over long periods of time. As a result, it is impossible to know how stable such controls are. Although institutional controls do appear to meet short-run public health concerns, their long-term viability is more problematic. At a minimum, it is essential that state and local governments create more capacity to monitor the long-term stability of these institutional controls.

### **Does targeted publicly supported brownfield redevelopment promote spontaneous economic expansion?**

There is little doubt that the Michigan brownfield initiative has been instrumental in generating a number of redevelopment projects across the state of Michigan. Long-vacant properties are being targeted for development projects. Informed observers agree that state policy has been successful in increasing developer interest in brownfield projects through a net reduction of private sector costs associated with such projects. Nor is there much dispute that these projects have had a generally positive impact in their community. At a minimum, site redevelopment means that a community is able to rid itself of a nonproductive eyesore. There are usually economic advantages as well. For example, some modest employment growth often follows redevelopment.

However, no case was found where an initial brownfield investment plausibly led to a significant secondary development as predicted by brownfield



renewal enthusiasts. Of course, linkages between economic development efforts and general growth are notoriously difficult to demonstrate. In addition to the complexity of the causal linkages involved in economic development policies, the modest economic impact of the Michigan brownfield initiative may also be a function of the relatively short time the initiative has been in existence. For example, a number of municipalities report that they have just begun their efforts, and it is unlikely that long-term impacts would be observable.

It is important to remember that a number of the Michigan reforms also promoted private development as well as public projects. Thus, it might be the case that while publicly supported projects have only a modest impact on overall economic expansion, the reforms that drive the public projects also promote a significant investment in the private sector. For example, limiting liability may have the effect of reintegrating properties once thought to be contaminated, but in fact were not, into a viable real estate market. Strictly speaking, such an outcome would not be public brownfield redevelopment. Nevertheless, the local economic advantage of such a reintegration is obvious. Therefore, any future attempts to measure the economic impact of the Michigan program will need to explicitly consider the impact of such private market transactions.

## **Broad Policy Questions**

In addition to these empirical questions, the brownfield program presents a set of issues that pose fundamental policy choices. While further evaluation can certainly help identify options, it cannot specify a “best option.” Ultimately these issues can only be resolved in the political process. Three examples of such issues are given below. The first two explore specific elements of the brownfield initiative. The final example raises a more general issue of state and federal policy decentralization.

### **What is the appropriate role of community preferences?**

There is little formal requirement for community or neighborhood involvement in brownfield project planning. Most communities have, nevertheless, attempted to create a forum for some neighborhood-level participation. Usually this participation

provides for neighborhood review rather than initiation of projects. This finding raises the question of the appropriate role of citizens most directly impacted by brownfield projects. To what extent should local communities be involved in a local redevelopment effort, and how does one bring about the desired level? Note that there is an inherent tension between efforts to promote private sector investment based on the market potential of specific parcels and efforts to design and implement an overall community plan. In a number of cities it was found that developers were unwilling to invest in specific facilities that were most desired by community residents.

### **How should policy makers deal with demands for increased environmental justice?**

Brownfield sites are most likely to be in low and moderate income, and minority neighborhoods. Critics of the Michigan brownfield initiative see the implementation of reduced contamination standards and institutional controls as creating patterns of environmental injustice. That is, minority and low-income citizens are put at greater health risks simply because of their proximity to sites to be redeveloped. Others — very often local elected officials — stress the critical need for economic development within these communities. For example, recently the mayors in Michigan’s core cities led the fight against federal environmental justice standards that would have reduced the capacity of cities to promote redevelopment projects.

### **What is to be done with unsuccessful programs?**

Although the long-term impact of the brownfield initiative remains problematic, there is evidence that it has spurred redevelopment projects across the state. Obviously this success has not been universal. Failures do occur. Indeed, failures can occur at both the site and community level. Site-level failures occur when local jurisdictions are unable to attract investment to specific parcels. Such problem parcels may suffer from relatively high levels of contamination or may be undesirable for development because of location, size, or other factors.

Failure can also be community-wide. In this case a community is unable to attract significant private investment in any local brownfield sites. Community failure can also be traced to a variety of

factors. Some communities simply do not have the capacity or the political will to implement brown-field programs. In other communities the available economic incentives are not sufficient to attract developers to local projects.

Such local policy failures pose important issues for state policy makers. For example, should more incentives be made available for so called “problem sites”? If so, how can one identify these sites? The issue of community program failure is even more complex. How, for example, can one differentiate city needs? Should the state take a more direct lead in redevelopment efforts in such jurisdictions, or should the state focus on those jurisdictions capable of generating private investment?

# Concluding Thoughts

This case study of the Michigan brownfield initiative reminds us of how complex the policy process actually is. Although formally a state program, the heart of the initiative is a set of over 100 local programs, many having multiple projects. Each project typically involves an array of local officials, developers, and community members. Moreover, projects and local programs have complex and overlapping ties with a variety of state officials.

Unfortunately, it is impossible to understand the impact of the brownfield initiative without relatively detailed analysis of these specific local projects. It is the impact of such projects that must ultimately drive the evaluation of the overall brownfield program. While the number and value of local initiatives can — and certainly will — be reported in a variety of aggregate statistics, the central evaluation issue is the return that specific redevelopment projects bring to the communities in which they occur. To monitor such local impacts requires an extraordinary effort, and often a rather messy and unsystematic research design. However, there is no alternative if we are serious in our efforts to learn from current policy initiatives.

This report illustrates the importance of such local-level analysis. It shows that within a single legislative framework, municipalities have constructed a variety of implementation strategies. Students of organizations sometimes decry such complexity, arguing that this variation introduces inefficiency into the policy system. A review of program outcomes suggests that such a fear may not be war-

ranted. There is little evidence that there exists a single best municipal strategy. There was, in fact, substantial evidence that the initiative has had a positive impact in a number of Michigan cities across a variety of implementation strategies. However, this success carries two important qualifications.

First, it is clear that the program in its present form introduces some policy tradeoffs that may not be acceptable to some communities. Specifically, a reliance on private developers almost automatically reduces opportunities for inclusive community participation and planning. It is also clear that program outcomes are modest. While it is certainly possible to identify specific sites that have been redeveloped through the program, there is no evidence of a broader pattern of redevelopment.

Second, certainly there is little to suggest that current brownfield programs can meet the very ambitious goals articulated by the programs more optimistic supporters. The initiative is neither revitalizing older industrial cities nor halting urban sprawl. Whether the program can evolve toward meeting these more ambitious goals will depend in part on the willingness of policy officials to subject their efforts to a careful assessment and then apply gained knowledge to the design of future redevelopment programs. Given this effort, brownfield redevelopment can become an even more effective economic development tool for Michigan cities in the future.

# Bibliography

Consumers Renaissance Redevelopment Corporation (1998). Michigan's Brownfield Redevelopment Program: First in the Nation, Consumers Renaissance Redevelopment Corporation.

Consumers Renaissance Redevelopment Corporation (1998). National Comparative Analysis of Brownfield Redevelopment Programs, Consumers Renaissance Redevelopment Corporation.

Davis, T. S. and K. D. Margolis (1997). *Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property*. Chicago, American Bar Association.

Environmental Financial Advisory Board (1998). Expediting Clean-Up and Redevelopment of Brownfields: Addressing Major Barriers to Private Sector Involvement — Real or Perceived. Washington D.C., United States Environmental Protection Agency.

Kaiser, S.E. (1998). "Brownfields National Partnership: The Federal Role in Brownfield Redevelopment." *Public Works Management and Policy* 2(3): 196-201.

Kummler, R. H. and D. S. Card (1999). Brownfield Redevelopment: The Michigan Strategy, College of Urban, Labor & Metropolitan Affairs, Wayne State University.

Michigan Department of Environmental Quality (1996). The Part 201 Amendments: One Year Later.

Michigan Department of Environmental Quality

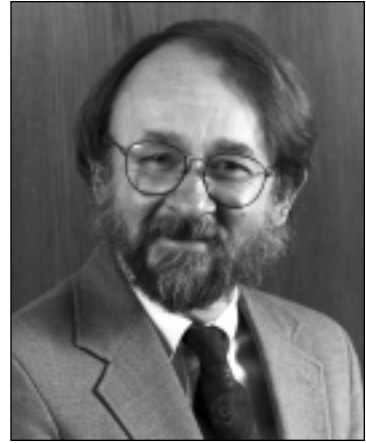
(1999). Brownfield Redeveloping Financing Acts: Three Years Later.

Reisch, M. (1998). Superfund Reauthorization Issues in the 105th Congress, Congressional Research Service.

Rosenbaum, W. A. (1995). *Environmental Politics and Policy*. Washington D.C., Congressional Quarterly.

United States General Accounting Office (1998). Superfund: EPA's Use of Funds for Brownfield Revitalization.

Woodruff, F. M., C. M. Denton, et al. (1998). Michigan's Brownfield Redevelopment Initiative: A Primer on How to Make the Most of It. Grand Rapids, Varun, Riddering, Schmidt and Howlett.



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Dr. Hula has been involved in a number of university programs to link university scholarship to the work of practice. These include a biannual policy institute for new Michigan legislators, a training program for citizens interested in political office, and numerous special workshops and symposia.

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