

# **BENDING PRIORITIES: A STUDY IN POLICY FRAMING. STATE OF MICHIGAN'S BROWNFIELD INITIATIVE**

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## **Abstract**

This paper explores the political process by which the state of Michigan successfully crafted and implemented such a brownfield initiative. Although the primary focus here is on the experience of a single state, the lessons to be learned from this case have national and international implications because Michigan is a leader in brownfield programs. The paper begins with a review of the general policy context in which state brownfield policy is made. Particular attention is given to the widespread dissatisfaction of a variety of stakeholders with long dominant federal programs in the area of environmental cleanups. The second section outlines a number of fundamental legislative and administrative changes that have been implemented in Michigan environmental policy over the past decade. Section three reviews the broad literature on issue framing and considers how it might help identify the specific mechanisms by which the innovative brownfield program was adopted. The final section provides an informal test of elements of the issue-framing model by exploring in some detail the convergence of public opinion with key elements of the innovative policy, and whether there was any significant shift in public opinion over time.

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## Introduction

One need not be an urban policy scholar to recognize that the environmental legacy of past industrial development simultaneously poses serious threats to human health and impedes potential redevelopment. The urban landscape in many countries is littered with sites contaminated with a variety of toxins. Such sites are commonly called brownfields, and are typically defined as “real property, the expansion, redevelopment or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant or contaminant” (United States Environmental Protection Agency, 2008)<sup>1</sup>.

The actual health risk posed by these sites is often unclear. For example, the magnitude or even the existence of contamination is often unknown. Even when the source and magnitude of contamination is known, the degree of human risk is often hotly debated. The science underlying risk analysis is far from exact. Complicating factors include the fact that contamination often has different impacts on specific populations (children, for example, are often more susceptible to environmental toxins) and multiple toxins often coexist in a given site giving rise to unpredictable interaction effects.

Given the complexity and costs often associated with the remediation of brownfields, it is not surprising that both public and private actors have long been reluctant to invest in such properties. It is important to emphasize that the public sector faces much the same kind of liability as private investors. One county in Michigan faces millions of dollars of liability on a site they were given, because the environmental consultant they hired to do analysis and file a baseline environmental assessment missed the filing date by one day. Another small city faces a similar clean-up liability because they inherited contaminated property from the township when the city first incorporated decades ago. Generally, investors prefer to target undeveloped or “green” sites for new development. In the United States pressure to locate on previously undeveloped new sites was especially strong given federal and state legislation that held land owners responsible for site cleaning whether or not they were responsible for the site contamination. In such a regulatory scheme, it made little economic sense to even consider acquiring properties that might prove to be contaminated. Indeed, a similar logic often drove owners of property to not attempt to sell, when least contamination was discovered.

Over the past two decades, public policy concerning brownfields has undergone a significant reassessment. For a number of reasons policy makers now view these contaminated and deteriorated properties as potential assets and targets for redevelopment<sup>2</sup>. There are various interpretations as to why this is so. In some parts

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<sup>1</sup> This is the “official” definition of brownfield used by the US Environmental Protection Agency (EPA), and captures the general sense of how the term is used internationally. One interesting difference, however, is that in the United States the term brownfield is usually applied only to sites under state jurisdiction. This excludes sites with the highest contamination which are under federal control. Legal definitions of brownfields also vary somewhat from state to state with Michigan being a salient example.

<sup>2</sup> For a sense of the international scope of brownfield programs see Donati (2004) and Whelan (2004).

of the world the high cost of land or the absence of undeveloped properties explains a renewed interest in brownfields. In this case, brownfields must be redeveloped because alternatives are simply not available. For example, British public policy cites a lack of alternatives as a basis for mandating a significant portion of new housing to be placed on brownfield sites. Some argue that brownfield redevelopment can be a useful tool in limiting urban sprawl by re-concentrating industrial and commercial facilities (Hamlin, 2002). Others see brownfield redevelopment as a means to encourage the overall renewal of older urban centers.

In the United States brownfield redevelopment is now an important theme in both state and federal environmental policy. A number of characteristics of these efforts are intriguing. Most interesting is the diverse coalitions that have formed to support such programs. Often such coalitions defy traditional expectations, cutting across political party, ideology, and region. The problem set which brownfield redevelopment seeks to address is equally diverse. Obviously it continues to include site remediation, but now 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 (Greenstein and Sungu-Eryilmaz, 2004).

Collectively, brownfield programs reflect a shift in the fundamental assumptions driving the design and implementation of American environmental policy since the 1960's. This includes both a change in substantive policy and a refocusing of authority. Through brownfield redevelopment programs, a number of states have successfully challenged a long established federal dominance in environmental policy.

This paper explores the political process by which the state of Michigan successfully crafted and implemented such a brownfield initiative. Although the primary focus here is on the experience of a single state, the lessons to be learned from this case have national and international implications. Michigan is a leader in brownfield programs, but it is hardly unique. Many states have implemented aggressive brownfield programs (Bacot and O'Dell, 2006; Bartsch and Anderson, 1998). The impact of such programs will almost certainly have a profound impact on overall environmental policy in the coming years. The processes by which these programs have been designed and implemented provide important insights into state level policy innovation.

### **Paper Overview**

The paper begins with a review of the general policy context in which state brownfield policy is made. Particular attention is given to the widespread dissatisfaction of a variety of stakeholders with long dominant federal programs in the area of environmental cleanups. The second section outlines a number of fundamental legislative and administrative changes that have been implemented in Michigan environmental policy over the past

decade. Section three reviews the broad literature on issue framing and considers how it might help identify the specific mechanisms by which the innovative brownfield program was adopted. The final section provides an informal test of elements of the issue-framing model by exploring in some detail the convergence of public opinion with key elements of the innovative policy, and whether there was any significant shift in public opinion over time.

It is clear that the data presented here suffer from the well-recognized limitations of case studies. Obviously, a single state case can not justify statistical generalization. Nevertheless, an in-depth review of an important example of policy innovation can provide conceptual insights to guide future comparative research. Case analysis also provides two specific advantages. First, it is possible to actually trace policy change within an institutional structure. This addresses one weakness of existing comparative state policy literature in that it relies on cross sectional data to infer longitudinal change (Lester and Lombard, 1990). Another advantage to the state case is that it implicitly controls for a variety of factors that inevitably impact policy change in different state programs.

### **The Policy Context<sup>3</sup>**

More than two dozen pieces of federal legislation regulate toxic materials in the United States (Vig and Kraft, 1997). The largest and most controversial of these efforts is the Comprehensive Response, Compensation and Liability Act of 1980 (CERCLA). Generally known as Superfund, CERCLA (and its 1986 reauthorization, Superfund Amendments and Reauthorization Act, SARA) has set the general parameters of toxic waste cleanup policy in the United States. Key elements of CERCLA include a focus on central (federal) decision-making, a commitment to restoring sites to a “natural” condition and the assumption that those responsible for pollution are responsible for all costs associated with cleanup<sup>4</sup>.

Recent federal brownfield initiatives modify these commitments 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 only 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 modified in the brownfield program by the use of voluntary agreements backed by grants and

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<sup>3</sup> For an historical review of the development of American environmental policy see Andrews (2006). For a review of current policy see Eisner (2007), Rosenbaum (2008) and Vig and Kraft (2006).

<sup>4</sup> For an overall description and critique of CERCLA see Mazmanian (1992), Nakamura (2003), Probst (2001) and Rahm (1998).

tax credits. Funding is based more on incentives than on a punitive liability scheme (Reisch, 1998, 1999; United States General Accounting Office, 1998). A striking aspect of the federal brownfield effort is the explicit acknowledgement of the leading role of the 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.

In spite of announced EPA policy changes, many states and local policy makers remain skeptical. They see federal authorities 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. Not surprisingly, many states and local policy makers see recent federal initiatives as ineffective and half-hearted efforts targeted to the margins of toxic cleanup policy. Critics particularly point to the inability of the Congress to craft a policy which would both permit the reauthorization of CERCLA and provide legislative support for brownfield renewal. As a result, a number of states have implemented their own programs, which are largely independent of federal efforts<sup>5</sup>.

### **Policy Innovation in Michigan**

In contrast to a continuing federal deadlock over toxic waste policy, Michigan has aggressively implemented a number of environmental policy reforms, both through legislative action and executive order, to promote brownfield redevelopment. In part these changes were seen as an effort to improve the cleanup capacity of the state. However, there can be little doubt that the emerging policy also reflects an altered political agenda. No longer is site cleanup the single goal (or perhaps even the most important goal) driving environmental policy targeted to contaminated sites. The return of brownfield sites to productive economic use is now a major focus for policy makers. John Engler who championed the Michigan brownfield program as governor made the connection of environmental and economic development goals quite explicit:

*"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, 1998a).

Although the changes in Michigan environmental policy are broadly consistent with new federal initiatives, the magnitude of the state changes is much greater. Specific policy innovations can be seen as a fairly direct effort to respond to long-standing criticisms of federal policy.

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<sup>5</sup> For an overall comparison of state programs see (Consumers Renaissance Redevelopment Corporation, 1998b; Environmental Law Institute, 2002).

The most fundamental contrast between Michigan and federal policy is that of liability. 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/she is not liable for a cleanup. 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. 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. New owners assume full liability for contamination beyond that reported in the baseline assessment<sup>6</sup>.

The state also reconfigured cleanup standards. Single standards were replaced by multiple criteria based on ultimate land use. Thus, MDEQ created separate standards for residential, commercial or industrial properties (Kummler and Card, 1999). Not surprisingly, the commercial and industrial standards are less demanding than those for residential development. State law requires that a legally enforceable restrictive covenant must be in place for a property to qualify for the use of specific cleanup standards. 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 creating an additional cancer of  $10^{-5}$  rather than the earlier standard of  $10^{-6}$ . 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 the actual cleaning of a site required standards (Davis and Margolis, 1997). Authorities may also create revolving loan funds to finance projects.

The state has also provided alternative sources of financing. Typically, this funding is not based on 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. Each authority must develop a plan that identifies eligible properties within its jurisdiction. The plan should 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.

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<sup>6</sup> It should be noted that the enforcement of this “affirmative responsibility” has been a very low priority of state officials.

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. Brownfield redevelopment authorities have the legal capacity to raise revenues in several ways. They are permitted to capture increases in state and local (including school) taxes that result from the redevelopment of brownfields through state enabled tax increment financing (TIF). The chartering municipality must approve the brownfield plan before tax increment financing is available to the authority. School tax increments become available only after the Michigan Department of Environmental Quality has approved the plan. 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 business tax (limited to 10% of capital investment or an absolute cap of one million dollars). Woodruff (1998) notes that many communities that were not interested in capturing tax increments nevertheless established authorities simply to qualify for the tax credit.

A 1998 bond issue provides a second important funding source for brownfield work. In that year, Michigan voters approved a 675 million-dollar environmental bond issue, Clean Michigan. The bond issued included 335 million dollars targeted directly to brownfield remediation. Local authorities can access these funds in several ways. State authorities directly fund some projects nominated by local authorities. Other funds are allocated through remediation and assessment programs administered by the MDEQ<sup>7</sup>.

In 2000, the brownfield initiative was significantly expanded in a very interesting way. The legal definition of brownfield was modified to include obsolete property whether or not there was potential on-site environmental contamination. The aim of this legislation was clearly to target resources that had been initially restricted to the remediation and redevelopment of contaminated urban sites more broadly to other urban sites that were candidates for redevelopment. The effective impact of this definition change has been to make Clean Michigan bond funds available to finance a number of local redevelopment projects that would have been clearly ineligible if the legal definition of brownfield remained tied to environmental contamination. Originally, this expanded definition of brownfield was restricted to the state’s 100 “core” urban communities. However, this restriction was dropped in 2007. Currently, all Michigan jurisdictions can use the state brownfield program to address non-contaminated sites<sup>8</sup>.

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<sup>7</sup> MDEQ reports that these funds are now nearly exhausted.

<sup>8</sup> See Kart (2008).

## Understanding Issue Framing

When viewed over time, two features of the Michigan Brownfield policy stand out. Most interesting is the bending of traditional environmental programs, stressing public health and remediation, with economic development efforts. Indeed, the economic development dimension of the state's brownfield program now largely overshadows more traditional environmental concerns. For example, state level evaluation of local projects now includes a requirement that the targeted site have a demonstrated economic potential. To encourage redevelopment, strong efforts have been made to reduce the cost of site remediation by increasing the level of permissible overall contamination, as well as introducing variable standards for different uses.

There can be little doubt that this blending of economic and environmental goals was an explicit goal of Michigan policy decision makers. In his 2000 state address, the Governor Engler called on the legislature to ratify a new "definition" of brownfield policy:

*"Tonight, I propose we build on our past success and spur even more redevelopment in our core cities. Let us pass a new Brownfield Redevelopment Act as part of a broader core cities strategy. This new measure will allow developers to invest in blighted areas and reuse old buildings that are not necessarily contaminated. Recycling more abandoned urban sites will reduce pressure to develop in rural areas without services"* (Engler, 2000).

The merging of environmental and development foci led to a second fascinating characteristic of the brownfield program. The Governor and his traditional supporters were joined by a most unlikely set of allies supporting the brownfield initiative. Most important were the largely democratic mayors of the state's core cities who became enthusiastic supporters of the initiative<sup>9</sup>. This support is hardly surprising given that mayors across the country are desperate to identify politically viable strategies to leverage public or private resources to encourage economic development in their communities. Early in the initiative, the United States Conference of Mayors identified brownfield redevelopment as having enormous potential for city redevelopment.

*"Among the potential benefits cited most often were tax-base growth, job creation, neighborhood revitalization, and environmental protection. Three-fourths of the survey respondents estimated that if their brownfields were redeveloped, these cities would realize \$902 million to 2.4 billion annually in additional tax revenues. In addition, 190 cities estimated that more than 587,000 jobs would be created on former brownfield sites"* (United States Conference of Mayors, 1998, p. 10).

The support provided by the core mayors for the Engler program was not simply symbolic. Most of them worked very hard and very publicly to persuade their

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<sup>9</sup> An important exception to this partisan distribution is Mayor John Logie of Grand Rapids. Logie is a conservative Republican and was active in supporting early brownfield resolutions passed by the Conference of Mayors during the early 1990s. Logie was active in drafting the legislative elements of the brownfield initiative.



constituencies to support their usual political adversaries. The mutual interest in this cooperation was made explicit by one of the state's core mayors:

*"The urban core mayors were the key allies of the governor in changing Public Act 305. We carried the water for them. So we saw ourselves as key players. It was important for him, it was important for us. We 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 has helped. We supported the Clean Michigan initiative. I went out there and cut TV ads, all of the urban mayors did that in their regions. So we wanted to put our imprimatur on it" (Hula, 1999).*

The support given by mayors to the efforts to expand state authority in the area of environmental cleanups was reinforced by a general dissatisfaction with the federal efforts to limit some redevelopment projects in the name of environmental justice. Federal authorities claimed that redevelopment efforts sometimes had the effect of placing undesirable facilities in low income and minority neighborhoods. City mayors, on the other hand, saw efforts to place further restriction on redevelopment as a major constraint on their capacity to bring investment to their city. There was often a clear undercurrent of anger that the federal authorities were questioning their commitment to the civil rights of their constituents. One mayor pointed out:

*"We had to take on this environmental racism issue. You know, I spend my life in the civil rights movement and spent two summers in Holly Springs, Mississippi back in the '60's. So I think my civil rights credentials are pretty good, but these policies would prohibit my developing a GM plant downtown, 'cause it might be located in one of the marginal neighborhoods. And I stand to lose that plant. That doesn't make any sense to me" (Hula, 1999).*

Clearly, local political support for the economic thrust of the new brownfield initiative translated into local bureaucratic action during implementation. Recent (fall 2007), in-depth interviews conducted by this paper's authors of 10 of the most active local brownfield redevelopment authorities (BRAs) revealed that 1) in every case the BRA was staffed by the staff of an economic development office, 2) all but one top staff person had economic development expertise, not environmental (the one exception was an environmental engineer), 3) substantial overlap in the membership of the politically appointed BRA governing board and the politically-appointed local economic development corporation governing board was evident, 4) when asked specifically whether they view the program as principally an economic development program or an environmental program, all indicated "economic development". Some expressed the hope that good environmental consequences would result from the economic initiative. Most indicated that they saw the Michigan brownfield initiative "as one more tool in their economic development tool box" to allow them to respond to a greater variety of situations. Nearly all brownfield projects included use of other public-private partnership economic development techniques. In-fact some locally-defined "brownfield projects" did not use any of the state brownfield programs (Hamlin *et al.*, 2008).

A third and perhaps even more unlikely source of support for the urban brownfield redevelopment came from powerful agricultural interests across the state. This support was generated from a widespread perception that brownfield redevelopment might be a way to reduce growing development pressures on agricultural land in Michigan<sup>10</sup>. Former president of the Michigan Farm Bureau Jack Laurie put it succinctly: *"We can't save our farms until we save our cities. Traveling the path of the last 30 years for the next 30 will diminish the quality of life for all"*.

### **Michigan Brownfields as a Policy Framing Example**

The definition of issue framing is usually seen to be relatively straightforward. For example, Chong and Druckman (2007a) define framing as a "process by which people develop a particular conceptualization of an issue or reorient their thinking about an issue". Nelson *et al.* (1997) note that framing is distinct from persuasion. Persuasion involves the use of new information to produce belief change, while framing utilizes known information within an individual or audience. The Michigan brownfield initiative presents an interesting case of elite issue framing. This would seem to be the case in at least two distinct ways. As has been noted, the initiative blended elements of environmental protection and economic development that had been previously viewed as independent public initiatives. Equally important, although perhaps not as obvious, was a de-emphasis of a number of traditional attributes associated with earlier policy. This is particularly true in the case of environmental policy where issues of site remediation and protection of public health were given diminished priority<sup>11</sup>.

The literature on policy framing asserts that different frames can produce variations in policy, and simultaneously reshape public opinion. Within the environmental policy literature, for example, a tension between conservation and economic goals is often assumed (Hoffman and Ventresca, 1999). In the case of Michigan brownfield policy, however, we see a merging of these two goals. The manner in which the brownfield "problem" was presented to Michigan citizens had an impact on the solutions that were proposed as well as the groups involved in creating and implementing policy. Hoffman and Ventresca (1999) anticipate the Michigan strategy in pointing to the benefits of framing the environment versus economics debate as a situation where multiple interests feel they are benefiting.

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<sup>10</sup> For an interesting illustration of this coalition see the collection of papers and presentations that were offered at an "urban summit" hosted by the Michigan core urban mayors and the legislative urban caucus at Michigan State University (Michigan State University Center for Urban Affairs, 1998). It is interesting to note that this coalition could agree on little beyond support for the brownfield program. Indeed, partisan pressures resulted in the collapse of the bipartisan urban legislative caucus shortly after this meeting.

<sup>11</sup> Interviews conducted with personnel in the Michigan Department of Environmental Quality as the program was being implemented strongly suggest that these changes were not merely rhetorical, but involved substantive policy changes. See Hula (1999) and Hula (2002).

Scholars have explored several aspects of issue framing. This includes the psychology behind these effects (Iyengar, 1991; Nelson and Oxley, 1999; Nelson *et al.*, 1997; Slothuus, 2008; Zaller, 1992), how framing can lead to variation in policy implementation and deliberation (Andersson and Bateman, 2000; Capek, 1993; Hall and White, 2008) and how framing influences public opinion (Chong and Druckman, 2007b; Druckman, 2001a, 2001b; Sniderman and Theriault, 2004)<sup>12</sup>.

Of particular interest in this paper is the claim framing has an important impact on public opinion. Chong and Druckman (2007b) demonstrate a link between public opinion and issue framing in a series of articles. A significant literature exists which claims to demonstrate a link between public opinion and issue framing. The majority of this work uses an experimental approach to examine the influence of one frame at a time (Chong and Druckman, 2007a; Cohen, 2007; Druckman, 2001 a, 2001b; Nelson *et al.*, 1997; Sniderman and Theriault, 2004). Subjects are separated into groups that receive different frames of an event. These groups are then asked questions to determine their opinions on the issue. Results demonstrate that groups respond differently depending on the frame to which they are exposed.

Sniderman and Therieault (2004) also examine the impact of multiple frames. In a competitive environment, individuals utilize the frame that best represents their values. This finding has led to further research seeking to discover whether competing frames cancel each other out. Work by Jacoby (2000) indicates that the elite framing of welfare policy lead to opinion change at the individual level. Chong and Druckman (2007a) hypothesize that in environments where multiple frames are present individuals will respond to frames differently depending on their motivation, knowledge and attitudes. In alter study they find that competition between frames does not completely void their impact while the quality of frames is demonstrated to have the most influence on the effectiveness of framing (Chong and Druckman, 2007a). They also note that elites attempting to frame an issue are constrained by whether they are viewed as a credible source on an issue. Haider-Markel and Joslyn (2001) examine the highly salient issue of gun policy to determine how framing of this issue after the school shootings in Littleton, Colorado influenced public opinion. In their experimental design the authors find a significant impact of framing on opinions.

Andersson and Bateman (2000) show the practical importance of issue framing in a study that shows environmental groups are able to influence business organizations to take positive action on the environment if they engage strategic issue framing. By framing environmental issues to highlight certain aspects of the problem, environmental groups can sometimes lead businesses to perceive negative consequences of not acting. Rein and Schon (1993) argue that how an issue is framed also impacts the substance

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<sup>12</sup> There is also a large communications literature that explores framing by media outlets and politicians (Gamson and Modigliani, 1989; Menashe and Siegel, 1998; Semetko and Valkenburg, 2000; Shah *et al.*, 2002).

of policy. Actors create stories and metaphors to describe a policy problem, which in turn leads to different alternatives for solving the problem. They show that differing frames lead to various policy outcomes. Stone (2002) argues that groups utilize symbols, facts and metaphors to describe policy problems in order to gain the attention of large numbers of people. This method of framing allows groups to gain members to rally around a cause. For example, welfare under the Reagan administration was framed as a “safety net” for people, which led to an emphasis on preventing “welfare abuse”. They also note that different groups sometimes bring different frames to an issue. In this case some coordination between groups may be necessary to avoid a political stalemate (Schon and Rein, 1994). Indeed, political debate can sometimes be understood as a debate over how best to frame an issue. Mazey and Richardson (1997) examine alternative framing strategy proposed by competing interest groups seeking to shape the agenda of the Inter-governmental Conference (IGC) in Europe. Similarly Capek (1993) demonstrates the importance of issue framing in his discussion of how a group of homeowners were able to organize a federal buyout and relocation from a Superfund site. He claims their success was due to the fact that the community was able to frame the issue around environmental justice. Taylor (2000) finds similar evidence for the success of the environmental justice frame. Steensland (2008) documents further evidence of the power of policy framing in a study of welfare reform. He links changes in frames of welfare policy to changes in policy discourse and outcomes during the 1960’s and 1970’s. Howarth (1996), in an examination of climate policy, argues that depending on how one frames climate change, there may or not be a case for the need to reduce greenhouse gas emissions. Hall and White (2008) examine the framing of a very specific environmental issue: Pacific Northwest salmon recovery. In this case political actors use a variety of frames to elicit specific solutions. Note that differing policy frames may be complementary and do not necessarily lead to political conflict. This was seen in the unusual coalition supporting the Michigan brownfield initiative. Agriculture interests and large city mayors brought different issue frames to the program, but were nevertheless in agreement with the desired policy.

Some scholars have examined policy framing within institutions. Lenschow and Zito (1998) examine how actors create policy frames that are embedded in community institutions. To better understand the impact of environmental policy frames the authors examine waste management policy and agricultural policy. They identify three alternative policy frames including conditional, classic and sustainability. The conditional frame defines environmental regulations as equalizing the market. The classic frame defines environmental regulation as an action that will reduce health and environmental risks. The sustainability frame argues that environmental and economic goals complementary and actually depend on each other. Findings indicate that, within the European context, the conditional frame has become institutionalized and it is difficult to change. Zavestoski *et al.* (2004) examined a toxic river crisis and found that institutions frame events preemptively in order to prevent a negative public response.

## Michigan Brownfields as a Policy Framing

The Michigan Brownfield Initiative provides an interesting natural experiment to test the impact of issue framing on public opinion. Typically, this is difficult to assess given a lack of time series data specific to individual policy initiatives. In the Michigan case, however, the Institute for Public Policy and Social Research at Michigan State University has probed citizen attitudes on various aspects of brownfield redevelopment at several time points, each with random telephone surveys of approximately 1000 respondents. These questions were designed by the authors and were included as a part of the Institute's quarterly "State of the State" survey.

The analysis first considers what one might call the core values of the policy initiative. These core values represent the dimensions on which policy makers have created policy frames. Four such core values underlie the Michigan example:

Core Value #1: In-ground solid waste contamination represents a threat to human health and requires a strong public mediation response.

Core Value #2: Redevelopment of older industrial sites for new industrial growth is highly desirable.

Core Value #3: All citizens of Michigan have an interest in maintaining and revitalizing urban centers.

Core Value #4: Redevelopment of deteriorated sites in older urban centers in Michigan is important.

Core Value #5: State government subsidization of private sector financed redevelopment of contaminated/deteriorated sites is appropriate.

One would expect that a successful reframing of distinct policies in economic development and environmental protection would draw on elements of each with strong public support. A review of available public opinion data shows that this is, indeed, the case. Figure 1 reports public attitudes toward core value #1.

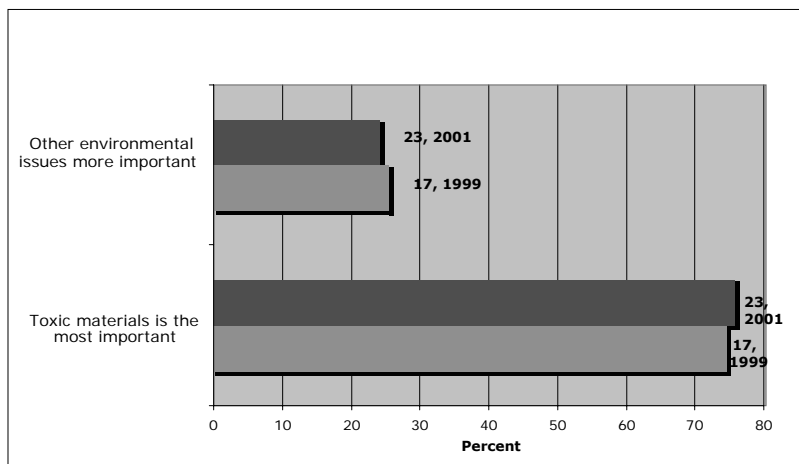
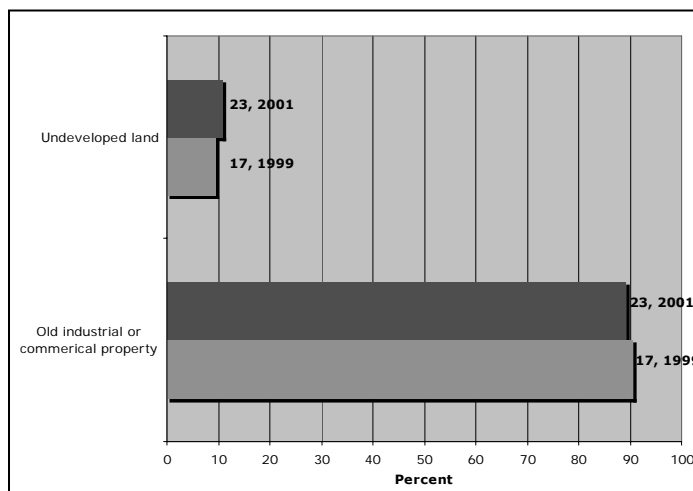


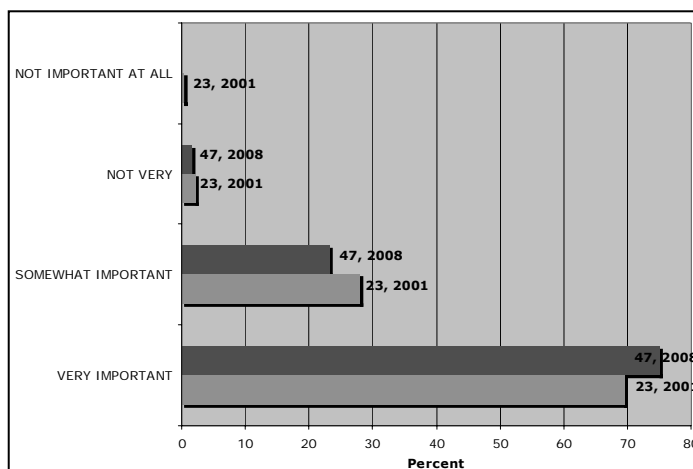
Figure 1: Toxic waters vs. other problems

Respondents were asked in 1999 and 2001 to identify what they saw as the major environmental issue facing the United States. In both surveys, well over seventy percent of those responding indicated that they saw contaminants in ground and water as the most important environmental issues facing the nation. Numerous observers have noted that such perceptions have little basis in scientific fact. Nevertheless, the very high levels of public concern about such contamination certainly suggest that public remediation efforts would be well received by the public.



**Figure 2:** Location Preference for Industrial Development

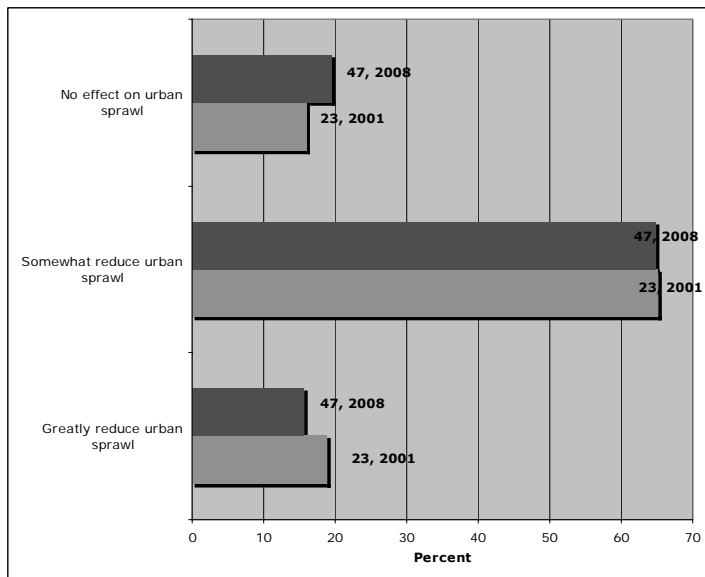
Figure 2 reports very strong popular support for placing industrial activity on sites that have been previously developed. Approximately 90% of all respondents favored placing industrial development on old industrial or commercial properties rather than undeveloped land. Similar results were obtained in a 1999 and 2001 State of the State Survey.



**Figure 3:** The importance of the Well Being Michigan Cities

Figure 3 reports a strong popular perception that the well being of Michigan’s cities in important for the overall health of the state. The level of support actual increased between 2001 and 2008. In 2008 75% of all respondents agreed that cities were important to the health of the state, up from 69% who agreed in 2001. In both surveys almost 97% of all respondents indicated some measure of agreement with the statement<sup>13</sup>.

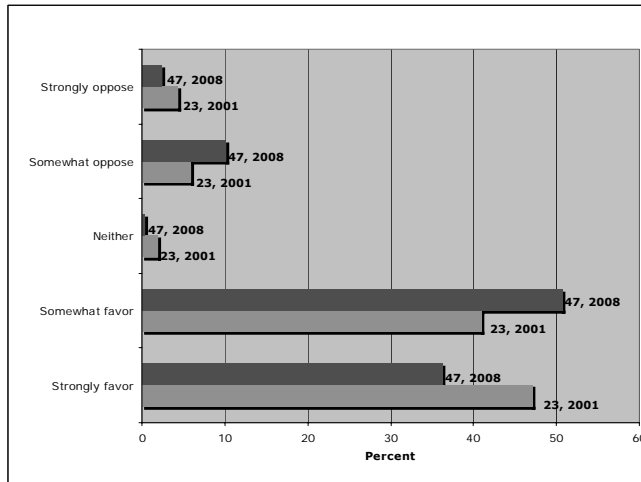
Figure 4 looks at one important aspect of redeveloping under-used urban sites as a path to reducing levels of urban sprawl. The data show that Michigan citizens do, by in large, agree with the assertion that such redevelopment will, indeed, help to reduce urban sprawl.



**Figure 4:** The effectiveness of re-developing underused areas to reduce urban sprawl

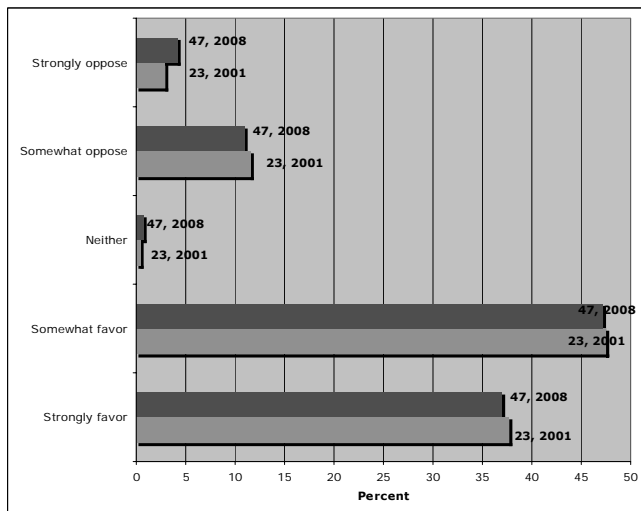
The final core value in the brownfield initiative is a claim that government subsidization of private sector redevelopment of contaminated sites is appropriate. Two questions relate to this issue, one regarding low interest loans and one regarding tax breaks. Figure 5 reports how citizens responded when asked whether the state should provide low-interest government loans to businesses that locate or grow in older central cities.

<sup>13</sup> Some caution is in order, however, in interpreting these results. Public support for urban centers drops when one specific city is mentioned. When asked about the importance of Michigan’s largest city (Detroit) for the future of state, respondents expressed less support than when the question was asked in the abstract. While a strong majority still gave some support to the proposition, only 46% strongly agreed in 2001 and only 42% strongly agreed in 2008.



**Figure 5:** Should the state provide low-interest government loans to businesses that locate or grow in old central cities?

Both questions provide strong evidence of popular support for a key element of the initiative. In a 2001 survey, 85% of the respondents indicated some level of support for tax breaks. In 2008, 84% expressed some measure of support<sup>14</sup>. Note, however, that those who were “strongly in favor” of such incentives dropped from 47% 2001 to 37% in 2008. The continued support for public incentives for private development is particularly interesting since the state budgetary concerns were much more severe and much more publicly salient in 2008.



**Figure 6:** Should the state provide tax breaks to businesses that locate or grow in old central cities?

<sup>14</sup> It should be noted, of course, that the percentage of respondents that strongly agreed with the proposition declined between 2001 and 2008.



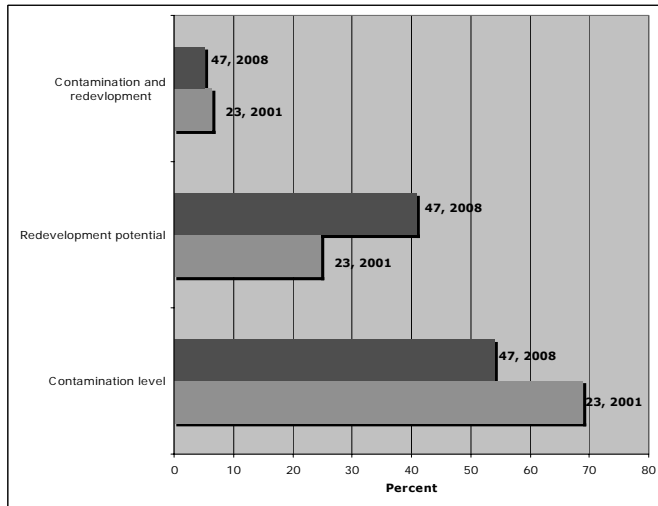
## Changing Opinion

As noted above several key elements of the brownfield initiative were consistent with popular opinion. In a sense the initiative was presented as a continuation of past successful programs. Given this fact, it is hardly surprising that the initiative was well received. While support for the core values of an initiative is important, a more interesting and perhaps counter-intuitive element of the policy framing literature would suggest that the successful framing of the initiative by policy makers might actually restructure opinion, perhaps by strengthening attitudes about the perceived need for the suggested policy changes. Three specific issues related to the change in the Michigan brownfield policy will be considered in this opinion-changing context:

- Allocation of Funds: Should environmental dollars be targeted to sites based on contamination levels or based on redevelopment potential?
- Imposition of Standards: Should the same clean-up standards be applied to all sites regardless of ultimate use?
- Cost effectiveness: Should clean-up standards take into consideration the costs involved, or should they be set as high as is technologically possible?
- Polluter Liability: Should the corporations or individuals responsible for the pollution be required to pay for the clean-up even if the activities they engage in were perfectly legal at the time?

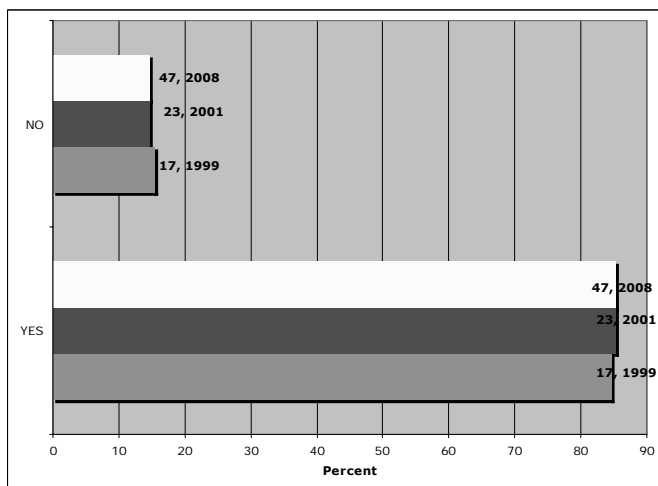
As noted in the summary description of the Michigan brownfield initiative, long-standing policy was challenged by the new brownfield initiative in each of these four areas.

Figure 7 examines the specific issue of how environmental bond funds should be allocated. In 2001, 69% of respondents indicated that they thought site contamination should be the major criteria for determining how funds should be targeted. Approximately 25% of the sample expressed a preference for using the potential of the site for redevelopment as a major decision criterion. The remaining six percent felt that both should be used. In 2008 the percentage of citizens supporting the contamination standard dropped to 54%, with those supporting redevelopment rising to almost 41%. Both 2001 and 2008 were difficult periods for the Michigan economy, so the economic situation cannot explain this attitude shift.

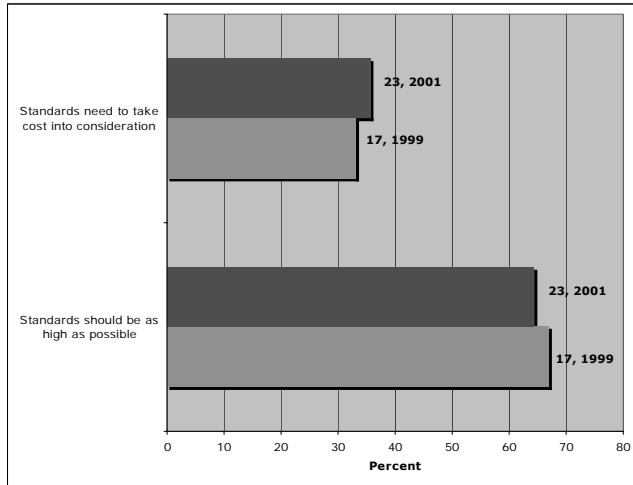


**Figure 7:** Should contamination level or the economic redevelopment potential be the most important criterion for using state environmental bond funds to rehabilitate the site?

Figure 8 examines the issue of differential clean-up standards depending on land use. The implementation of such differential standards was, of course, an important element of the brownfield initiative. Figure 8 makes it clear that early in the program citizens did not favor such differential standards. It is also the case that there has been no shift in public opinion on these issues. In 2001, 85% of the respondents favored a single clean-up standard no matter what the project site land-use might be. In 2001, 82% of all respondents favored a single standard. In 2008, 84% endorsed the single standard.

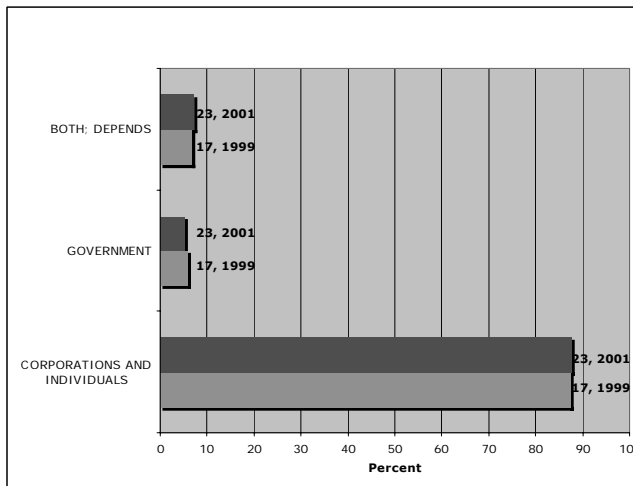


**Figure 8:** Do polluted sites that are going to have industrial development on them have to be cleaned as thoroughly as sites that are targeted for future housing developments?



**Figure 9:** Should requirements and standards for site remediation be as high as possible or should the standards take into consideration the costs involved?

Figure 9 considers another aspect of the standards issue. Here the question is whether cost ought to be factored into a potential remediation strategy. The federal tradition, of course, was to demand the highest level of cleaning that was technologically possible, whatever the cost (Hula, 2001). Figure 9 shows that this principle is and has remained strongly supported by the state’s residents. Sixty-three percent of all respondents agree with the notion that standards should be set as high as possible regardless of how expansive such action turns out to be. In 2001, 62% agreed that standards should be set as high as possible.



**Figure 10:** Should corporations or individuals responsible for the pollution be required to pay for the clean-up even if the activities they engage in were perfectly legal at the time?

Figure 10 examines whether the public supports the sort of strict liability built into the Superfund program. They express overwhelming support for the notion that those responsible for the pollution are liable for clean-up costs – even if the pollution was legal at the time of the contamination. In 2001, 88% of the population expressed support for the proposition. In 1999, 84% of the population supported this view<sup>15</sup>.

Table 1 provides an overview of popular opinion of these program dimensions over time. Table 1 shows that in two of the four dimensions popular opinion has moved toward those incorporated in the new reframed brownfield policy. The most dramatic change occurred in the relative importance of redevelopment potential of sites in evaluating environmental bond investment. Between 1999 and 2008 an opinion shift of 17% occurred. A more modest decline of 5% occurred in support for the imposition of the highest possible clean-up standards<sup>16</sup>. There was no evidence of citizen opinion change on holding responsible parties accountable for pollution or using differential standards based on land use.

**Table 1: Changes in Public Opinion on “New Dimensions” of Brownfield Policy**

| Attribute                                                                                                                                                                    | 1999 | 2001 | 2008 | Change    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|------|------|-----------|
| Contamination level should be the most important criterion for using state environmental bond funds to rehabilitate the site.                                                | 69%  |      | 52%  | -17%      |
| Corporations or individuals responsible for the pollution should be required to pay for the clean-up even if the activities they engage in were perfectly legal at the time. | 86%  | 84%  |      | No Change |
| Requirements and standards for site remediation should be as high as possible.                                                                                               | 67%  | 62%  |      | -5%       |
| Polluted sites that are going to have industrial development on them need to be cleaned as thoroughly as sites that are targeted for future housing developments.            | 84%  | 85%  | 84%  | No Change |

### Summary/Conclusions

It is widely recognized that several states have significantly restructured important aspects of environmental policy through the implementation of new efforts to clean and redevelop contaminated sites. A review of one such program in the state of Michigan provides an interesting opportunity to consider how such a policy innovation might be appropriately framed and whether such framing has any long-term impact on public attitudes.

Perhaps the most obvious aspect of the Michigan story is the clear skill used by policy makers in framing new policy around a set of dimensions that are widely favored by

<sup>15</sup> Note that respondents endorse governmental support of clean-ups where the financially viable responsible parties cannot be identified.

<sup>16</sup> Note, however, that this change took place in a very short time frame (two years) relative to the investment criterion question (nine years).

citizens. Each major theme in the policy had strong popular endorsement. Thus, it is not surprising that the over policy reformulation experienced significant support.

It is less intuitive what impact the reformed policy will have on public opinion where existing opinion is less supportive of specific elements of the new policy. There is some literature that would like one to expect that public opinion should move toward the norm established by the new policy. Indeed, there is some evidence that such a shift did occur in Michigan, at least in some of the more visible aspects of the program. There seems little doubt that the program is associated with increased public support for incorporating economic development goals into decisions about state investments in site reclamation. This change also supports an increase in state subsidies to spur redevelopment. However, the data also show some need for caution. Public opinion generally favors business development subsidies, but not for parties responsible for environmental contamination and citizens remain steadfast in their skepticism about differential cleanup standards.

In the future, policy makers should remember that popular support for the brownfield program is based on norms that include strong support for environmental cleanup. If the policy loses too much of its environmental focus, and becomes perceived by the public as “just another economic development tool in the tool box”, the brownfield initiative might lose its support among some members of the diverse coalition described in this paper. It might lose its policy frame. This needs to be studied in the future.

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