ENVIRONMENTAL LIABILITY AND THE BROWNFIELDS PHENOMENON: AN ANALYSIS OF FEDERAL OPTIONS FOR REDEVELOPMENT

ANDREA LEE RIMER*

* J.D. Harvard Law School, 1996. The author practices environmental law in the Atlanta, Georgia office of Troutman Sanders LLP. The firm regularly handles transactions involving federal and state liability for hazardous waste. The author's practice focuses on hazardous site cleanup, air quality, and water pollution issues.

I. INTRODUCTION

The broad liability structure of state and federal hazardous waste cleanup statutes has led to the under-utilization and abandonment of a large percentage of our nation's urban property. This so-called "brownfields" phenomenon has had a devastating economic and environmental impact on communities across the nation. However, there are administrative and legislative steps that can, and must, be taken by the federal government to reverse this alarming trend.

This Article analyzes the problems in the federal liability scheme that have led to the creation and perpetuation of brownfields properties, and examines potential ways to encourage redevelopment. While the focus is generally on the federal scheme and changes that can be made on the federal level, many of the same policy considerations discussed in this Article apply to state programs as well. Furthermore, because state environmental liability can play an integral role in both the brownfields problem and its solution, state programs will be discussed, as necessary.

While much has been written on brownfields in recent years, few authors have provided an in-depth examination of the options for redevelopment on the federal level. Instead, many have focused on brownfields redevelopment within the states or have concentrated their

analysis on only one aspect of the problem.[1] I hope that this Article will provide a new understanding of the factors that contribute to the brownfields phenomenon and of the full implications of federal measures designed to reverse this problem.

A. Background: Superfund

In 1980, Congress passed the Comprehensive Response, Compensation and Liability Act (CERCLA), also known as "Superfund."[2] Passed in the wake of the Love Canal disaster,[3] CERCLA was designed to quickly clean up the hazardous waste sites threatening the public's health, and to find parties who could be held accountable to pay for such cleanups.

Together, CERCLA and the Superfund Amendment and Reauthorization Act of 1986 (SARA)[4] established a system of retroactive, strict, and joint and several liability for those found to be "potentially responsible parties" (PRPs).[5] PRPs include those broadly defined as past or present "owners," "operators," "transporters" or generators.[6] Under Superfund's liability system, even those parties which had no direct role in the contamination of the property—for example, current property owners or lenders—may be found liable for the

---

1. *See, e.g.*, Robert S. Berger, *Recycling Industrial Sites in Erie County: Meeting the Challenge of Brownfield Redevelopment*, 3 BUFF. ENVTL. L.J. 69 (1995); Jane F. Clokey, *Wisconsin's Land Recycling Act: From Brownfield to Greenfield*, 2 WIS. ENVTL. L.J. 35 (1995); R. Michael Sweeney, *Brownfields Restoration and Voluntary Cleanup Legislation*, 2 ENVTL. LAWYER 101 (1996); William W. Buzbee, *Remembering Repose: Voluntary Contamination Cleanup Approvals, Incentives and the Costs of Interminable Liability*, 80 MINN. L. REV. 35 (1995); Douglas A. McWilliams, *Environmental Justice and Industrial Redevelopment: Economics and Equality in Urban Revitalization*, 21 ECOLOGY L.Q. 705 (1994).

2. Pub. L. No. 96-510, 94 Stat. 2627 (codified as amended at 42 U.S.C. §§ 9601-9675 (1994)).

3. Between 1942 and 1953, the Hooker Chemical Company filled an abandoned hydroelectric channel in Love Canal, New York with over 21,000 tons of chemical waste. See THE SUPERFUND DEBATE, INTRODUCTION TO ANALYZING SUPERFUND: ECONOMICS, SCIENCE & LAW, 4-5 (Richard L. Revesz & Richard B. Stewart eds., 1995) (citing PETER S. MENELL & RICHARD B. STEWART, ENVIRONMENTAL LAW AND POLICY (1994)). In 1953, Hooker covered the site and sold it to the Niagara Falls Board of Education for $1. *See id.* A school and playground were built on the site and the surrounding land was developed for residential use. *See id.* The situation was brought to national attention in 1978 after toxic chemicals were discovered to have seeped into the soil and groundwater, endangering the health and safety of the community, and prompting New York's health commissioner to declare a public emergency. *See id.*

4. Pub. L. No. 99-499, 100 Stat. 1613-1781 (codified as amended at 42 U.S.C. §§ 9601-9675) [hereinafter collectively referred to in the text as Superfund].

5. 42 U.S.C. § 9607.

6. *Id.* § 9607(a).

entire cost of the cleanup.[7] To effect a cleanup, the EPA may order the site's PRPs to conduct and fund the site's remediation.[8] Alternatively, the EPA may undertake remediation itself, finance the cleanup through Superfund, and recover its expenses from the PRPs in a subsequent lawsuit.[9] In addition, private parties and other responsible parties may bring contribution actions against responsible parties to recover a portion of their cleanup costs.[10]

PRPs also face potential liability under analogous state environmental laws. Approximately forty-five states have laws similar to CERCLA that impose liability for contamination on various classes of "responsible" parties.[11] These programs are, for the most part, intended to address the large number of sites that pose a risk to the public or the environment, but which are not hazardous enough to qualify for treatment under CERCLA.[12] One implication of this dual system is that people facing environmental liability must satisfy the requirements, if any, of both the federal and state programs in order to be released from liability.

B. The Brownfields Phenomenon

Although federal and state environmental statutes have achieved some success in cleaning up contaminated property, one ironic result of their broad liability schemes has been to discourage the use of formerly industrial land.[13] Because almost anyone associated with contaminated property may be deemed fully liable for the cost of cleanup, developers and investors are reluctant to acquire and reuse property they perceive to be contaminated—which generally means any property with an industrial history.[14] Furthermore, because owners are required to report

---

7. *See id.* § 9604(a)(1).
8. *See id.*
9. *See* 42 U.S.C. § 9604(a)(1).
10. *See id.* §§ 9613(f), 9659.
11. *See* Elizabeth Glass Geltman, *Recycling Land: Encouraging the Redevelopment of Contaminated Property*, NAT. RESOURCES & ENV'T., Spring 1991 at 3,5.
12. *See id.*; *See also* Mark D. Anderson, The State Voluntary Cleanup Program Alternative, 10 NAT. RESOURCES & ENV'T, Winter 1996, at 22.
13. *See* OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS, STATE OF THE STATES ON BROWNFIELDS: PROGRAMS FOR CLEANUP AND REUSE OF CONTAMINATED SITES 1-4, 8 (1995); *see also* Charles Bartsch & Richard Munson, *Restoring Contaminated Industrial Sites*, ISSUES SCI. & TECH. 74, 75 (Spring 1994) (arguing that "perhaps the greatest barrier to industrial site reuse . . . is [Superfund]").
14. *See Reclamation and Reuse of Abandoned Industrial Sites: Testimony Before the Subcomm. on Tech., Env't and Aviation of the House Comm. on Science, Space, and Tech.*, 103d Cong. 26-27 (1994) (statement of Charles Bartsch) [hereinafter *Abandoned Industrial Sites*] ("While the vast majority of brownfields will never be subject to a Superfund investigation, the

contamination discovered on their property (contamination for which they will be liable) many owners avoid testing their property by simply removing the property from the market.[15] These properties, which continue to sit idle or abandoned, have come to be known as "brownfields." The EPA defines brownfields as "abandoned, idled or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination."[16] According to the General Accounting Office (GAO), there are between 150,000 and 500,000 of these brownfield sites nationally, with cleanup costs conservatively estimated at $650 billion.[17] These sites can be found anywhere, but are mainly concentrated in urban areas due to past industrial development patterns.[18]

C. Brownfields Are a Serious Economic and Environmental Problem

The presence of these brownfield properties can have an economically and environmentally devastating impact on surrounding communities. First, contaminated property poses a variety of potential health risks to nearby residents.[19] Exposure to harmful, and often

---

perception of potential Superfund liability nonetheless creates a disinclination to sell, purchase or lend on brownfields").

15. *See* McWilliams, *supra* note 1, at 715-16.

16. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE, BROWNFIELDS ECONOMIC REDEVELOPMENT INITIATIVE: APPLICATION GUIDELINES FOR DEMONSTRATION PILOTS 2 (1995) (Pub. No. EPA/540/R-94/068) [hereinafter EPA DEMONSTRATION PILOT GUIDELINES].

17. *See* Anne Slaughter Andrew, *Brownfields Redevelopment: A State-Led Reform of Superfund Liability*, 10 NAT. RESOURCES & ENV'T, Winter 1996, at 27.

18. As Douglas McWilliams explains,

> [d]ecades of heavy industry in an era with limited environmental awareness have left a legacy of contaminated, often abandoned, industrial structures located on millions of acres of polluted land throughout the United States. The huge, empty shells of heavy industry in urban industrial centers are viewed as casualties of a shift in America's industrial base toward light manufacturing, and a related shift away from rail and waterway transport to interstate highways. In the shadow of these aging behemoths stand the remains of many secondary facilities that once fed off the work generated by them. Closed paint shops, plating shops, and other assorted "job shops" litter the inner-city with their own histories of contamination. Also gone are the businesses that relied on worker-generated consumer demand, such as gas stations and dry cleaners; these now sit idle due to releases or suspected releases of the hazardous materials endemic to their operations. The result is an urban environment where soil contamination is presumed, where groundwater and surface water pollution are likely, and where the "polluter pays" principle is failing to generate sufficient funds to clean up the mess.

McWilliams, *supra* note 1, at 714-15 (citation omitted).

19. *See* Buzbee, *supra* note 1, at 39.

carcinogenic, substances can occur when children play at an abandoned site, when runoff or migration spreads the contamination to neighboring properties, or through a number of other pathways. In addition, natural resources are threatened and property values are harmed due not only to the potential contamination, but to the often unsightly nature of these abandoned sites.[20] The presence of abandoned sites can also increase the crime rate in the area, since they are often attractive locations for the homeless or for illegal activity.

Abandoned brownfield sites also represent the loss of untold economic and job opportunities for residents within the affected community. Each abandoned site represents the loss of a business that could have potentially provided jobs for urban residents and attracted customers for local stores and restaurants. Instead, residents are forced to find work further from their homes, and local businesses relocate or fail due to the area's economic stagnation. Furthermore, according to a study released by the U.S. Conference of Mayors in January 1996, failure to redevelop abandoned and under-used industrial sites across the country is costing states and cities hundreds of millions and possibly billions of dollars in lost tax revenues.[21] This is money that could be spent on urban infrastructure or on social programs designed to benefit communities.

The impacts of brownfields are not only felt within the immediate community, and the effects of brownfields are not restricted to urban areas. The brownfields phenomenon has had a widespread impact on the environment in nonurban areas as well. Because of the uncertain nature of environmental liability at brownfields sites and the resulting failure to reuse industrial property, developers have increasingly chosen to develop pristine land—often referred to as "greenfields." This land usually does not have an industrial history, and thus does not pose the threat of environmental liability to developers, making it more attractive and easier to acquire and develop.[22] This trend has unfortunately led to the increased degradation of pristine land, potentially transforming today's greenfields into tomorrow's brownfields.[23] In addition, because greenfields are often in nonurban locations, they lack the infrastructure

---

20. *See id.*

21. *See* Paul Sonali, *Mayors Seek More Help in Reviving Industrial Sites*, REUTERS, LTD., Jan. 25, 1996. For example, 33 out of the 39 cities surveyed were losing a total of $121 to $386 million annually in local tax revenues. *Id.*

22. *See* Julia A. Solo, *Urban Decay and the Role of Superfund: Legal Barriers to Redevelopment and Prospects for Change,* 43 BUFF. L. REV. 285, 287 (1995). Solo refers to this "incentive to spread contamination" as "the irony of Superfund," which was designed instead to protect the environment. *Id.*

23. *See* McWilliams, *supra* note 1, at 717-19.

and access to public transportation of their urban brownfield counterparts.[24] Therefore, it is not only more difficult for urban workers to get to these sites, but the increased pollution associated with commuting to these greenfield sites further degrades the environment.[25]

D. The Movement Toward Redevelopment

Recognizing the negative effects of brownfields, states and localities were the first to enact policies designed to promote brownfields redevelopment. These attempts have, for the most part, taken the form of voluntary cleanup programs which seek to encourage nonculpable landowners, purchasers, and developers to voluntarily undertake remediation of contaminated property.[26] These state programs often address a variety of problematic cleanup issues including applicable cleanup standards, limitations on liability, the nature and level of government involvement in the cleanup, the limitations on who can qualify for the programs, what types of properties qualify, and the nature and extent of community participation.[27] As part of these programs, the states offer in varying degrees a number of creative incentives for voluntarily undertaken cleanups.[28]

Concern for the brownfields problem, prompted in part by the growing number of state programs, has manifested itself on the federal level in a number of legislative and administrative proposals. Brownfields first hit the federal legislative agenda in 1994 as part of the Clinton administration's failed Superfund Reform legislation.[29] Since that time, many federal bills have been introduced that either include a brownfields component or specifically address alleviating the brownfields problem.[30] Thus far, none of these bills has been enacted into law.

---

24. *See id.* at 721.

25. *See id.* at 721-22.

26. *See infra* Part IV; *see generally* Geltman, *supra* note 11, at 8-10 (discussing state voluntary cleanup programs).

27. *See* Stephen C. Jones, *Unless Congress Authorizes the EPA to Grant Developers Releases From Liability, New Inner-City Cleanup Programs May be of Limited Value,* NAT'L L.J., May 15, 1995, at B6.

28. *See infra* Part IV (providing a detailed discussion of voluntary cleanup programs).

29. *See* H.R. 3800, 103d Cong. (1994); S. 1834, 103d Cong. (1994).

30. *See* H.R. 2500, 104th Cong. (1995) (Oxley R-OH); S. 1285, 104th Cong. (1996) (Smith R-NH); H.R. 1620, 1621 104th Cong. (1995) (Regula R-OH); H.R. 2178, 104th Cong. (1995) (Brown D-OH); H.R. 3093, 104th Cong. (1996) (Franks R-CT); H.R. 2742, 104th Cong. (1995) (English R-PA); H.R. 2919, 104th Cong. (1996) (Quinn R-NY); H.R. 2846, 104th Cong. (1996) (Coyne D-PA).

The EPA first comprehensively addressed the brownfields problem in January 1995 when it announced its Brownfields Action Agenda.[31] The Action Agenda is designed to encourage brownfields cleanup and reuse by addressing the barriers created by existing regulations and administrative practices.[32] Although the EPA acknowledges that a number of brownfields issues will require amendment of the Superfund statute itself, the agency feels that it has made progress by implementing changes within the context of the existing law.[33] These changes include removing sites from the federal inventory (CERCLIS), clarifying liability and cleanup issues, establishing a pilot program, improving communications and forming partnerships within the agency and with other agencies and brownfields stakeholders, and improving job development and training programs.[34]

E. The Brownfields Problem Remains Unsolved

Despite the amount of attention given to brownfields redevelopment by the legislatures and administrative agencies of both the state and federal governments, the brownfields problem has not yet been adequately addressed. This is in part due to the fact that the federal government has failed to take any substantial steps toward brownfield redevelopment.[35] While some success has been achieved on the state level, without the federal government's full involvement, questions and obstacles still remain.

There are four areas in which federal reforms to encourage brownfields redevelopment have been considered. These are:

(1) limiting liability for purchasers and lenders,
(2) considering future use of contaminated property,
(3) voluntary cleanup programs, and
(4) use of financial incentives.[36]

These four categories, for the most part, encompass the brownfields redevelopment proposals most commonly put forth by

---

31. *See* UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, BROWNFIELDS CHECKLIST, (1996) [hereinafter BROWNFIELDS CHECKLIST].

32. *See id.*

33. *See id.*

34. *See id.*

35. Note that the virtual deadlock surrounding the most recent Superfund reauthorization has stalled consideration of any legislative changes to the Superfund program.

36. *See* McWilliams, *supra* note 1, at 726 (identifying these four objectives as the main reform objectives of urban redevelopment advocates); Solo, *supra* note 22, at 287 (identifying these factors as the "basic barriers to urban economic redevelopment").

policymakers. Although a complete restructuring of the liability system has been advocated as a solution to, among other things, the brownfields problem, consideration of that issue is beyond the scope of this Article. Instead, the analysis is focused on legislative and administrative changes that can be made within the general framework of the existing liability system.

As federal and state governments consider their options for dealing with the brownfields problem, the full policy implications of their actions should be taken into account. There is an enormous risk that more important environmental and health considerations will be ignored in the rush to find a quick fix for the economic aspects of brownfields. While restoring these contaminated sites to productive use is an important social goal, it should not be at the expense of nearby residents or future generations. Thus, any brownfields redevelopment proposal should consider the economic, environmental and health implications to all stakeholders, and not just the economic interests of potential developers. At the same time, however, it should be recognized that redevelopment is necessary to the economic and environmental well-being of our nation's cities, and that appealing to the profit motives of developers may be both appropriate and necessary.

II. LIMITING LIABILITY FOR PURCHASERS AND LENDERS

The idea behind Superfund's strict, joint and several liability scheme is "to spread the risks and costs among all parties associated with the hazardous waste industry, and to simplify the government's ability to require cleanups at the least possible cost to the government."[37] The severity of the liability scheme is designed to create incentives for responsible parties to cooperate with one another to undertake the cleanup on their own.[38] And, because each of the four classes of PRPs has theoretically profited in the absence of regulation in their past production or handling of the waste, the scheme can be seen as enforcing the "polluter pays" principle.[39]

This system seems fair in relation to parties which played a direct role in the pollution of the property. However, parties which played no role whatsoever in the contamination of the property can be caught in Superfund's liability trap as well. Purchasers of contaminated property and lenders with a security interest in contaminated property are two

37. Berger, *supra* note 1, at 82.
38. *See id.* at 82-83.
39. *See id.* at 83.

prominent examples of apparently "innocent" parties who can sometimes face Superfund liability. This potential for sweeping liability has discouraged prospective purchasers from buying brownfields property and discouraged lenders from accepting such property as collateral for loans. Despite the fact that the vast majority of brownfields will never be subject to a Superfund investigation, the perception of liability nonetheless creates a disinclination to sell, purchase, or lend on brownfields.[40] Reducing the actual and perceived liability to purchasers and lenders should be an important goal for both state and federal brownfields programs.

A. Prospective Purchaser Liability

1. Uncertain Prospective Purchaser Liability Makes Contaminated Property Unmarketable

Because Superfund designates the present owner of a contaminated property as a liable party, anyone who purchases the property is also buying into Superfund's strict liability component and can be held responsible for the entire cost of remediating the site.[41] This would not be a substantial problem if the costs of remediation could be reliably ascertained by the purchaser beforehand. In that case, the purchase price would simply be the market value of the property minus the cost of environmental remediation. Or, in "upside down" situations where the cost of cleaning up the contaminated property exceeds the value of the property, the owner would give the purchaser money in exchange for the purchaser agreeing to take title to and liability for the property. However, there is no way to accurately predict the cost of remediation under the current system.[42] The amount of contamination is often unknown until the remediation actually begins, making it difficult to determine the extent of the anticipated remediation. Further, because the EPA lacks standardized cleanup procedures, even if the full extent of contamination is known, it is difficult for purchasers to predict what level of remediation will be demanded of them and what the cost of remediation will be. Purchasers are reluctant to voluntarily take on such uncertain liability. Therefore, owners are often unable to find a buyer for their brownfield property.

---

40. *See Abandoned Industrial Sites, supra* note 14.
41. *See* McWilliams, *supra* note 1, at 726.
42. *See* Buzbee, *supra* note 1, at 47-54.

2. Existing Protections for Prospective Purchasers are Inadequate

In theory, there are two ways for a prospective purchaser who is unconnected with the property's contamination to escape liability. These are the innocent landowner defense and the prospective purchaser agreement. However, neither adequately protects prospective purchasers and their subsequent transferees from liability.

a. Innocent Landowner Defense

The innocent landowner defense is a defense to Superfund liability for landowners who purchased land after its contamination and who did not contribute to the contamination in any way.[43] However, this defense only applies when owners unknowingly acquire the contaminated property after undertaking "all appropriate inquiry" into the prior history of the site.[44] The appropriate inquiry generally consists of an environmental audit.[45] According to the statute, the purchaser must have no reason to know that any hazardous substance existed on the property at the time of purchase to be released from liability.[46]

In the case of most brownfields properties, this defense is inapplicable. As a practical matter, the contamination of brownfields properties is always known at the time of purchase or available after a reasonable inquiry.[47] The site's industrial history alone will usually put the prospective purchaser on notice of potential contamination. Furthermore, many states have property transfer laws which, at a minimum, require disclosure of site contamination before a transfer can occur.[48] Most lenders also require parties to perform an environmental audit before they will accept potentially contaminated property as collateral.[49] In addition, even if an environmental audit fails to reveal contamination, prospective purchasers may not be able to safely rely on the audit to protect them from liability under the innocent landowner defense.[50] This is because the courts place the burden of proof on the new landowner and have generally been reluctant to release a PRP based on this defense.[51] One explanation for this is that "[w]ith the benefit of

43. *See* 42 U.S.C. §§ 9607(b), 9601(35)(A) (1994).
44. *See* Solo, *supra* note 22, at 295-96.
45. *See id.*
46. *See* 42 U.S.C. § 9607(b).
47. *See* Berger, *supra* note 1, at 85.
48. *See* Geltman, *supra* note 11, at 4-5.
49. *See* Berger, *supra* note 1, at 85; *see also infra* Part II.B.2.
50. *See* McWilliams, *supra* note 1, at 727.
51. *See id.*

hindsight, a court is likely to deem inadequate any assessment of [formerly] industrial property that failed to find the contamination".[52] Because of these considerations, the innocent landowner defense is generally useless in the context of brownfields remediation.

b. Prospective Purchaser Agreements

Prospective purchasers can also potentially escape liability by entering into a Prospective Purchaser Agreement (PPA) with the EPA.[53] If a purchaser suspects contamination based on its pre-purchase investigation or the industrial history of the site, the purchaser can offer some type of assistance in the cleanup effort in exchange for a release of liability from the EPA.[54] These agreements are designed to encourage redevelopment of contaminated property by limiting the risk to purchasers and allowing them to settle for a certain sum before they buy the land.[55] However, PPAs have been a vastly under-used mechanism for brownfields remediation. Between 1989 and 1995, for example, the EPA entered into only 16 such agreements.[56]

There are many possible reasons for EPA's failure to utilize PPAs. First, the EPA only considers entering into PPAs in a limited number of circumstances.[57] Because of its policy not to become entangled in purely private real estate transactions, the EPA has provided covenants not to sue only in instances where the agency anticipates an enforcement action.[58] This, however, does not describe the vast majority of brownfield properties, few of which are ever subject to a federal enforcement action.

Second, the EPA has been unwilling to release even these nonculpable prospective purchasers from liability without receiving a "substantial benefit, not otherwise available" in return.[59] It is possible that the EPA is demanding too substantial a benefit, and that the cost of meeting this requirement is too high for many prospective purchasers.

---

52. *Id.* (citing 42 U.S.C. § 9601(35)(A)(i)).
53. *See id.* at 728.
54. *See* McWilliams *supra* note 1, at 728
55. *See id.*
56. *See* E. Lynn Grayson & Stephen A.K. Palmer, *The Brownfield Phenomenon: An Analysis of Environmental, Economic and Community Concerns*, 25 Envtl. L. Rep. (Envtl. L. Inst.) 10337, 10343 (1995).
57. *See* Guidance on Landowner Liability under Section 107(a)(1) of CERCLA, De Minimus Settlements under Section 122(g)(1)(B) of CERCLA, and Settlements with Prospective Purchasers of Contaminated Property, 54 Fed. Reg. 34235, 34241 (1989).
58. *See id.*
59. *Id.* at 34241-42.

Furthermore, if the EPA believes that its anticipated response costs can be recouped through other means, it will completely refuse to enter into a PPA, further reducing the number of situations in which this mechanism can be used.[60]

Third, settlement negotiations with the EPA are generally a time-consuming, complicated, and often frustrating process. The prospect of being forced to negotiate a lengthy PPA beforehand undoubtedly discourages many prospective purchasers from purchasing brownfields property. Even if a release from liability could be obtained, such procedures make unencumbered greenfields property all the more attractive.

Recognizing the weaknesses in its PPA program, the EPA recently revised its guidance on PPAs in order to expand the circumstances under which the agency will provide covenants not to sue to prospective purchasers of contaminated property.[61] This new guidance most notably revises two of the original criteria for entering into PPAs.[62] The EPA now recognizes "the potential gains in terms of clean up and public benefit that may be realized with broader application of prospective purchaser agreements."[63] Therefore, it expands the use of PPAs to sites where federal involvement has already occurred or is expected to occur, as opposed to only sites where enforcement action is anticipated.[64] In addition, the "substantial benefit" requirement has been expanded to include not only direct monetary and cleanup benefits, but also indirect public benefits in combination with a reduced direct benefit to the EPA.[65] These, however, are extremely small changes which still do not address the majority of brownfields. These changes may encourage a few more prospective purchasers to enter into PPAs, but should not be expected to have a dramatic impact on brownfields redevelopment.

---

60. *See id.*

61. *See EPA Superfund Administrative Reforms: Progress: Superfund Administrative Fact Sheet: Prospective Purchaser Guidance, May 25, 1995*, 1995 Daily Envt. Rep. 102 (BNA) (May 26, 1995). [hereinafter *1995 Prospective Purchaser Guidance*].

62. *See id.*

63. *Id.*

64. *See id.*

65. *See 1995 Prospective Purchaser Guidance, supra* note 61.

3. Better Mechanisms for Releasing Purchasers from Liability Are Necessary

If policymakers want to encourage brownfields remediation, they will need to come up with better ways of improving the marketability of brownfields properties than those methods currently in existence.

a. Expansion in the Use of Prospective Purchaser Agreements

As discussed above, the current PPA structure does not do enough to encourage brownfield redevelopment. However, one possible solution to the brownfields problem is for the EPA to further liberalize its use of PPAs.[66] Ideally, if pre-purchase releases from liability or covenants not to sue were more widely available to prospective purchasers, it would lead to a greater sense of security on the part of buyers, and thus to increased redevelopment.

Even if the PPA program were expanded, however, it is not clear that it would provide the best vehicle for releasing prospective purchasers from liability. One reason is that the transaction costs of negotiating a PPA are very high. This may explain why PPAs are currently so narrowly circumscribed by the EPA. In an attempt to wisely allocate scarce agency resources, the EPA has chosen to effectively restrict the availability of PPAs to the most extreme cases—cases in which the lack of a PPA would almost certainly subject the purchaser to a substantial amount of liability. It would be very expensive for the EPA to enter into a PPA any time a prospective purchaser feared federal involvement, no matter how unlikely that involvement may be, since much of the brownfields problem is based on the perception of Superfund liability, and not on the actual existence of liability.

It is possible to address the problem of transaction costs by changing the process for granting PPAs to reduce the transaction costs involved. However, this would require a dramatic change in the EPA's policies regarding prospective purchasers. Even the recent, more "flexible" regulations demonstrate an extreme reluctance and caution on the part of the EPA to release prospective purchasers.[67] This caution may be rooted in Superfund's designation of the current owner as a "responsible party."[68] After all, if the prospective purchaser were to

66. *See* McWilliams, *supra* note 1, at 743.
67. *See 1995 Prospective Purchaser Guidance, supra* note 61.
68. *See* 42 U.S.C. § 9607(a) (1988).

actually buy the property, as the owner, he would then become a responsible party under the statute. When the EPA grants a PPA, it sees itself as forfeiting its right to pursue compensation from a party that will someday meet the definition of a PRP. This caution is heightened by the fact that the prospective purchaser may be the EPA's only chance to receive payment or assistance if no financially viable PRP is available.[69]

Furthermore, even with a PPA, some risk to a prospective purchaser remains. First, PPAs do not provide a release from state liability. Such releases must be negotiated separately with the individual state.[70] Second, the prospective purchaser may not be protected from site conditions that were unknown at the time of the agreement, since PPA releases and covenants not to sue often contain reservation of rights language.[71] This leaves the prospective purchaser with an enormous amount of uncertainty. No matter how good the environmental audit of the property may be, it is possible to miss pockets of contamination.[72] Third, because PPAs are individualized agreements, it is possible that liability releases cannot be assigned to another party, unless transferability protection is specifically negotiated into the agreement. This type of limitation on the marketability of the property is simply not feasible for most developers. Finally, unless contribution protection is specifically negotiated and included in the PPA, third parties may be able to sue in a contribution action. Therefore, in order to truly release prospective purchasers from liability, a legislative solution may be required.[73]

b. Designating Purchasers as a Special Statutory Class

Another way to limit prospective purchaser liability is to statutorily exempt purchasers from Superfund liability. Purchasers of brownfields property would then no longer have to consider liability issues when deciding whether or not to purchase and redevelop property. Furthermore, the only agency action required would be that of determining whether or not an individual meets the requirements of the

69. *See* McWilliams, *supra* note 1, at 744 ("Negotiations over abandoned sites involve high stakes since the negotiating parties may be the only two viable cleanup contributors—the Superfund and the prospective purchaser").

70. *See* Grayson & Palmer, *supra* note 56, at 10343.

71. *See id.*

72. *See* McWilliams, *supra* note 1, at 747.

73. *See* Jones, *supra* note 27 ("As a practical matter, until Congress provides such authority through the reauthorization and amendment of CERCLA, it seems unlikely that EPA will have the authority or flexibility to offer liability releases that will provide real and effective incentives to join these programs, other than on a negotiated case-by-case basis.").

statutory exemption. However, certain issues should be considered when contemplating the extent of this exemption.

i. Who Should Receive Purchaser Exemptions?

If any new purchaser is automatically exempted from liability, it could become an enormous loophole through which otherwise responsible parties could avoid liability, counteracting the intended purpose of Superfund's strict liability formula.[74] Therefore, there should be some restrictions on who qualifies for a purchaser exemption. However, it is also important that the exemption remain unambiguous and easy to apply. Otherwise, it would both perpetuate the perception of Superfund liability and could later involve parties relying on the exemption in protracted legal proceedings.

The Clinton administration's 1994 Superfund Reform Bill dealt with this problem by defining who could be considered a "bona fide prospective purchaser" (BFPP), and thus be exempt from liability.[75] Under the proposal, a BFPP is "a person who acquires ownership of a facility after enactment of this provision, and who can establish by a preponderance of the evidence" that, inter alia, he "is not affiliated with any other person liable for response costs at the facility, through any direct or indirect familial relationship, or any contractual, corporate, or financial relationship other than that created by the instruments by which title to the facility is conveyed or financed."[76] This type of requirement limits the amount of abuse that can occur by making sure that the purchaser has no prior interest in the property or in a PRP of the property. Although it is slightly ambiguous what type of activity rises to the level of a "corporate or financial relationship," this problem can be fairly easily addressed through more explicit EPA rulemaking or guidance.

ii. How Can The Purchaser Use The Land?

A second consideration is that upon releasing a prospective purchaser of contaminated land from liability, he may have to be limited in his activities on the land due to the continued presence of

---

74. *See generally* Solo, *supra* note 22, at 311-14 (discussing who should benefit from liability releases if offered by the federal government).

75. Both the Clinton Administration's Superfund Reform Bill, S. 1834, 103d Cong., 140 CONG. REC. S1058, S1073 (1994), and the current Accelerated Cleanup & Environmental Restoration Act, S. 1285, 104th Cong., 142 CONG. REC. S2689, S2698 (daily ed. Mar. 21, 1996), contain provisions for designating certain parties as "Bona Fide Prospective Purchasers," who are exempted from liability.

76. 1994 Superfund Reform Bill, S. 1834, 140 CONG. REC. at S1073.

contamination. It would be dangerous to the public to allow development that would disturb, and thus cause a release of, hazardous substances. Similarly, a prospective purchaser should not be exempt from liability for contamination caused by his own activities on the land.[77] Allowing an exemption in that case would completely undermine Superfund's liability system. Prospective purchasers who are otherwise exempt should thus remain liable for their specific activities on the land that contaminate or cause a release of contamination.

A prospective purchaser's use of the land may also be inherently limited by current or future remediation of the property.[78] If the remediation has not yet taken place, the developer may not want to risk extensive development of the property, since it may later be affected or somehow disrupted by cleanup activities. Further, if the remediation is currently taking place, development may be delayed or otherwise hindered. These uncertainties and inconveniences will unfortunately remain a disincentive to purchasing brownfield property. However, there may be enough incentives to counterbalance any negative aspects of this sort.

iii. What Should Be Done If Remediation Increases The Value of the Land?

One final issue concerns the purchase price versus the value of the land after remediation. It is likely that, due to the contaminated state of the property, a purchaser will be able to acquire a brownfield site at a reduced price.[79] However, once the government or PRPs remediate the property, the site is clean and thus may become much more valuable. Should the purchaser benefit from this windfall, or should the government be able to recapture the increase in value to the extent of its unrecovered cleanup costs? If the purchaser is allowed to keep this increase in value, it would be a powerful incentive to purchase contaminated property, similar to the financial incentives discussed below in Section V.[80] However, simply purchasing brownfield property does

77. *See* Solo, *supra* note 22, at 314.

78. *See id.* at 315.

79. This, of course, is debatable. To the extent that it is the purchaser's liability that is driving down the value of the land, and not simply the presence of hazardous waste, exempting purchasers from liability may restore the price to pre-contamination market value. In addition, if there is some certainty that the land will be remediated, the purchase price may reflect the land in its remediated state.

80. The government would, by financing the cleanup that led to the property's increase in value, in effect be providing a subsidy to the purchaser. Thus, allowing purchasers to keep the

not benefit anyone except the current owner and the prospective purchaser. If the purchaser does not actually redevelop the land in some way, there is no benefit to the public. Allowing purchasers to keep the proceeds from the increased value of the property after remediation would thus only encourage speculation in brownfield real estate.

One alternative is to allow only those purchasers who develop their land in a way that benefits the public to keep any increase in value due to remediation. This would be a more narrowly tailored indirect financial incentive. However, there would be no way for the government to control this "increase in value incentive," since some purchasers will experience no increase over the purchase price, and others will receive the benefit of an unduly large increase.

Another way to handle any increase in value over the purchase price is to give the United States the authority to place a lien on the facilities owned by the prospective purchaser for any unrecovered response costs that increase the property's value.[81] However, some care would have to be taken to ensure that the lien captures only the increased value from the cleanup and not increases from the developer's improvements to the land or the land's increase in value over time. In other words, the developer's investment should be protected by narrowly targeting the increase truly attributable to remediation.

There is also a danger that the EPA's ability to place such a lien on remediated property will discourage purchasers from investing in brownfield property. However, if the lien provisions are carefully designed so that the purchaser's investment is protected and he is not made indirectly liable for the remediation, there should not be a major problem.

4. What Would Be the Effect of Releasing Purchasers from Liability?

Releasing prospective purchasers from liability on a large scale—whether through a statutory exemption or through PPAs—may have a variety of consequences on the market and the liability system, in addition to those described above.

Ideally, releasing purchasers from liability would encourage them to consider brownfield properties on an equal footing with greenfields

---

benefit of the property's increase in value is equivalent to a government sponsored financial incentive.

81. *See* 1994 Superfund Reform Bill, S. 1834, 140 CONG. REC. at S1066.

sites. This does not mean that purchasers will always choose the brownfield site, however. Other factors, such as taxes, crime, congestion and location will, as always, play an important role in the decision-making process.[82] However, brownfield properties may have an advantage, due to their often superior locations in urban areas, the presence of existing infrastructure, and other factors such as proximity to the workforce and markets. At the very least, brownfields will no longer suffer from the distinct disadvantage of real or perceived potential liability.

However, allowing purchasers to be exempted or easily released from liability requires certain tradeoffs to be made within the liability system. For one thing, the EPA will lose a potential source of funding for cleanups, since purchasers will, in most situations, no longer be considered PRPs simply due to their new status as owners. This may, in the end, result in the government being forced to pick up more of the cost of cleanup through the Superfund. Nevertheless, the benefits received by the public and all levels of government from increased marketability and the increased likelihood of redevelopment of brownfield properties may very well outweigh the increased cost to the government. Furthermore, these new purchasers will, for the most part, be parties that would not otherwise have associated themselves with contaminated property. Thus, the government would not really be losing anything by their release.

Another consideration is that if people are allowed to freely purchase contaminated property, current owners will indirectly benefit. Some current owners will have directly caused the contamination on their property, while others may have no connection with the contamination other than their status as current owners. Regardless, allowing them to sell their property would enrich them, while still leaving them liable under Superfund. On the one hand, this would be an advantage if it contributes to the financial viability of PRPs. Because insolvent PRPs have no funds to pay a judgment from a cost-recovery or contribution action, they are essentially judgment-proof. If the funds received from the sale of the contaminated property contribute to a PRP's solvency, the purchase price could thus be indirectly used to fund the cleanup of the property. However, some PRPs may be able to effectively hide the income from their sale of contaminated property. In this case, they would

82. *See* J. BOYD ET AL., THE IMPACT OF UNCERTAIN ENVIRONMENTAL LIABILITY ON INDUSTRIAL REAL ESTATE DEVELOPMENT: DEVELOPING A FRAMEWORK FOR ANALYSIS (1994).

be enriched without any concurrent benefit to the cleanup effort.[83] There is, unfortunately, no easy answer to this problem. It may, however, be possible for the government to require any funds from the purchase of a property containing known contamination to be placed into an escrow account until cleanup has been completed and the government is compensated for its costs.

However, this would have a negative impact on an owner's incentive to sell his potentially contaminated property. The money in the account would present an easy target to the government for satisfaction of cleanup costs. Few owners would go to the trouble of selling if they knew the money was only going to be taken from them for remediation of property they no longer own. This would only add to the disincentives owners already face in selling their contaminated property.[84]

Clearly, releasing purchasers from liability will not completely solve the brownfields problem, but it may make a substantial difference when coupled with other state and federal reforms and incentives. Furthermore, the full effects on the liability scheme and the market will not be known unless and until purchasers are actually exempted or released from liability. It would then be up to the government to decide whether the positive effects outweigh the negative.

B. Lender Liability

1. Weakening of the Secured Creditor Exemption

Superfund has traditionally created a number of risks for lenders. Among these are the risk that debtors who face liability as a PRP will default on their loans due to the burdens of liability, or that contamination will make property used as collateral worthless.[85] In either of these cases, however, the lender loses only the amount of its investment.[86] But if the lender itself were deemed to be a PRP, due to either its ownership

---

83. Of course, not all brownfield property is actually contaminated. Many brownfields suffer only from the unwarranted perception of liability. To the extent that it helps these owners sell their property, releasing or exempting purchasers is a good idea.

84. For example, if contamination is only suspected, owners have a clear disincentive to open up their property to the type of environmental investigation that almost always accompanies the purchase of formerly industrial property. If contamination is in fact discovered in this situation, the owner is more likely to face a state or federal enforcement action, whereas the contamination might have otherwise gone undetected.

85. *See* Sara A. Goldberg, *Lender Liability under CERCLA: Shaping a New Legal Rule*, 4 N.Y.U. ENVTL. L.J. 61 (1995) (citing Walter E. Mugdan, *Environmental Due Diligence and Liability Under Superfund for Lenders and Fiduciaries*, C667 A.L.I.-A.B.A. 109, 112 (1991)).

86. *Id.* at 63.

of property resulting from foreclosure, or its activities in relation to property held as collateral, "not only is the lender's security interest endangered, but the lender may be held liable for both cleanup costs and natural resource damages, an amount that can easily surpass the value of the loan."[87]

Congress ostensibly sought to avoid subjecting lenders to this type of liability by including in Superfund a "secured creditor's exemption." This exemption states that an "owner or operator . . . does not include a person, who, without participating in the management of a vessel or facility, holds indicia of ownership primarily to protect his security interest in the vessel or facility."[88] However, the various interpretations of this provision have caused a great deal of confusion among lenders concerning what activities will subject them to liability.[89] Of greatest concern has been the 1990 Eleventh Circuit opinion in *United States v. Fleet Factors Corp.*,[90] in which the court found that hazardous substances were disturbed and released in the course of Fleet's liquidation operations, making Fleet liable as an "operator" of the facility.[91] The court's opinion stated:

> It is not necessary for the secured creditor actually to involve itself in the day-to-day operations . . . in order to be liable. . . . Nor is it necessary for the secured creditor to participate in management decisions relating to hazardous waste. Rather, a secured creditor will be liable if its involvement with the management of the facility is sufficiently broad to support the inference that it could affect hazardous waste disposal decisions if it so chose.[92]

This very narrow interpretation seems to indicate that a lender can be held liable as a PRP any time it has even the ability to affect a borrower's activities regarding hazardous waste. Thus, *Fleet Factors* substantially weakened the secured creditor exemption as a protection for lenders.

---

87. *Id.*

88. 42 U.S.C. § 9601(20)(A) (1994).

89. For a brief history of the exemption's interpretation by the courts, *See* Eric S. Tresh, *The Return of Lender Liability Under CERCLA: What Should Lenders Do?*, 3 S.C. ENVTL. L.J. 131, 134-39 (1994).

90. 901 F.2d 1550 (11th Cir. 1990).

91. *Id.* at 1552-53, 1559-60.

92. *Id.* at 1557-58.

More importantly, it created the perception of risk in the lending community.[93]

2. Effects of Lender Liability on Brownfields

The risks of liability to lenders—whether actual or perceived—have had a negative impact on brownfield properties. Lender fears concerning involvement in potentially contaminated property have made financial assistance for redeveloping brownfields more difficult, and often impossible, to obtain.[94] For example, according to a 1990 poll conducted by the American Banker's Association (ABA), 62.5% of the responding banks reported rejecting loan applications based on the possibility of environmental liability.[95] Without the necessary financial support, many brownfields redevelopment projects are simply abandoned.[96]

Another obstacle to obtaining loan funding for brownfields redevelopment is the increased transaction costs of being approved for a loan when using property as collateral.[97] After *Fleet Factors*, most banks changed their lending practices in order to protect themselves from Superfund liability.[98] Among the changes in bank practices has been the adoption of multi-faceted environmental risk management policies, which include the often used requirement that potential borrowers perform an environmental assessment on any property put up as collateral.[99] For an industrial property, a simple environmental assessment may cost anywhere from $1,000 to $10,000, and a detailed site investigation with soil sampling can easily cost $50,000 or more.[100] This has caused an enormous increase in the transaction costs involved in obtaining a loan.[101]

---

93. *See* Goldberg, *supra* note 85, at 74 ("the perception of a lender liability emergency remains pervasive among both banks and members of Congress").

94. *See* Tresh, *supra* note 89, at 140.

95. *See* Goldberg, *supra* note 85, at 69-70 (citing ABA Comment to EPA Rule No. NCP-LL/DSB-2-206, at 5 (1991) (unpublished document on file with the EPA)).

96. *See* Tresh, *supra* note 89, at 140.

97. *See* Grayson & Palmer, *supra* note 56, at 10346.

98. *See* Goldberg, *supra* note 85, at 69-70 (noting that according to the American Bar Association, 88% of banks reported changing their lending practices to avoid liability).

99. *See* Tresh, *supra* note 89, at 139-40 (noting that after *Fleet Factors*, lenders which continued to make loans on potentially contaminated property "saw their transactional costs skyrocket.").

100. *See* Grayson & Palmer, *supra* note 56, at 10340 (citing Jim D. Bower, *The Challenges of Brownfields Development*, 24th Annual Conference on Environmental Law (1995)).

101. *See* Tresh, *supra* note 89, at 139-40.

Another situation impacting brownfields has been that if collateral property turns out to be contaminated, many lenders will simply walk away from the property, rather than foreclosing and facing the risk of being liable for cleanup.[102] This has increased the number of abandoned properties. As a result of lenders not stepping in to take the place of the bankrupted owner, the properties have not only fallen off the tax rolls, but taxpayers are left holding the clean-up bill.[103]

3. Clarifying the Secured Creditor Exemption

In an attempt to shore up the secured creditor exemption in the aftermath of *Fleet Factors*, the EPA issued a lender liability rule designed to clarify the ambiguities in the statute.[104] This rule rejected the *Fleet Factors* interpretation, and specifically defined the scope of activities a lender could undertake without incurring "owner or operator" liability.[105] However, the EPA rule was invalidated in *Kelley v. United States Environmental Protection Agency* by the Court of Appeals for the D.C. Circuit as beyond the scope of the EPA's rulemaking authority.[106] In response, Congress recently passed legislation as part of the Omnibus Consolidated Act of 1996 that is designed to clarify the limits of liability of lenders and fiduciaries involved or potentially involved with contaminated property.[107] Essentially, this bill is a congressional adoption of the EPA rule.[108] This legislative change would ideally calm lender anxiety, make funds more available for brownfields redevelopment, and make unnecessary the extreme precautions taken by lenders in accepting property as collateral, thereby decreasing transaction costs for brownfields developers attempting to obtain loans.[109]

However, some have questioned not only why the lender liability exception should be strengthened, but whether it should exist at all. The Chemical Manufacturers Association (CMA), for example, argues that the supposed lender liability crisis does not really exist and that preferential rules for lenders are the result of a "sweetheart deal" with the

---

102. *Id.* at 140.

103. *Id.*

104. *See* 40 C.F.R. § 300.1100 (1992).

105. *See id.* § 300.1100(c)(1)(ii).

106. *See* Kelley v. United States Envtl. Protection Agency, 15 F.3d 1100 (D.C. Cir. 1994).

107. Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996, Pub. L. No. 104-208, §§ 2501-2505 (HR3610) (to be codified at 42 U.S.C. § 9607).

108. *See id.*

109. Coupling this with a prospective purchaser exemption could also eliminate lender fears concerning the value of the collateral, since the property could thus be freely sold.

Office of Management and Budget (OMB) and the EPA.[110] In support of this position, the CMA cites the low incidence of lenders actually being held liable as responsible parties.[111]

Furthermore, imposing liability on lenders may actually serve to benefit Superfund enforcement. If lenders are subject to liability, they will have an interest in monitoring the hazardous waste activities of their borrowers. Lenders often have access to a great deal of information concerning borrowers, and they have the ability to influence borrower behavior through their power to grant or reject these often necessary loans.[112] In addition, banks already have a number of mechanisms in place which are designed to check borrower behavior and protect their security interests.[113] Thus, in many ways, lenders can enforce environmental compliance more efficiently than even the government.[114]

This situation seems to create a tension between the interests of Superfund enforcement, which may benefit from lender liability, and those of brownfields, which may suffer. However, the recent legislative change to the secured creditor exemption appears to strike a fair balance between these interests by potentially increasing available financing for brownfield sites, while maintaining some level of lender responsibility for monitoring borrowers' environmental activities.

III. CONSIDERATION OF FUTURE USE IN REMEDIATION OF PROPERTY

Altering cleanup standards based on site-specific factors such as the reasonably anticipated future use of the property has been repeatedly cited as a potential way to encourage brownfield redevelopment.[115] Advocates of this strategy argue that current EPA procedures require the land to be returned to an unreasonably pristine condition, and thus lead to cleanups that are far too expensive.[116] This unjustified expense

110. *See* Goldberg, *supra* note 85, at 73-74.

111. *Id.* at 74. (noting that the Chemical Manufacturing Association "makes much of the fact that in the entire history of the Superfund program, out of the many thousands of PRPs at identified sites EPA has identified only eight lenders as responsible parties.") One study by the Southern Finance Project found that of the 17,095 PRPs identified by the EPA, only 40 were lenders. *See* Tresh, *supra* note 89, at 141.

112. This is the logic applied by the court in *United States v. Fleet Factors Corp.*, 901 F.2d 1550 (11th Cir. 1990), in which the court reasoned that its decision was designed to encourage lenders to "monitor the hazardous waste treatment systems and policies of their debtors and insist upon compliance with acceptable treatment standards. . . ." *Id.* at 1558-59.

113. *See* Goldberg, *supra* note 85, at 76.

114. *See id.* at 75-9 (discussing the economic efficiency of imposing lender liability).

115. *See* Solo, *supra* note 22, at 308.

116. *Id.*

discourages developers from cleaning up and redeveloping brownfields in favor of greenfields and other properties where environmental remediation is not necessary.[117] In these circumstances, the brownfields site remains contaminated and continues to burden the community, with no hope of being put to a more productive use.[118] However (the argument goes), if risk factors such as the future use of the property were taken into consideration, a less stringent, and thus less expensive cleanup would be performed.[119] This would not only deter fewer purchasers from considering brownfield property, but would make it easier for any cleanup to be performed, thus returning more land to productive use more quickly.

Less stringent cleanup standards for industrial property can be applied in a number of circumstances. On the state level, the idea has been incorporated into many states' voluntary cleanup programs as an incentive for redevelopment.[120] However, on the federal level, proposals have centered on incorporation of future use analysis into the Superfund program itself. The imposition of less stringent cleanup standards based on the future use of contaminated property, however, has a number of serious policy implications that should be explored before such a drastic change in federal cleanup standards is made.

A. EPA Policies Have Traditionally Not Considered Future Use

The regulations implementing Superfund, the National Contingency Plan (NCP), require that a site-specific baseline risk assessment be conducted for each cleanup to "characterize the current and potential threats to human health and the environment that may be posed by contaminants migrating to groundwater or surface water, releasing to air, leaching through soil, remaining in the soil, and bioaccumulating in the food chain."[121] The EPA then uses the results of the risk assessment to: (1) Evaluate the need for action at a site, (2) ascertain the maximum "safe" levels of contaminants at the site, (3) determine and compare the potential impacts of remediation

117. *See* Grayson & Palmer, *supra* note 56, at 10344.

118. *Id.*

119. *Id.* at 10343.

120. *See e.g.* OHIO REV. CODE ANN. § 3746; 1995 Pa. Laws 2; R.I. GEN. LAWS § 23-19.14 (1995); MINN. STAT. § 115B.175 (1995); LA. REV. STAT. ANN. § 30:2285-90 (West 1996); VA. CODE. ANN. tit. 10.1 § 1429.1 (1995).

121. National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 55 Fed. Reg. 8848 (1990); *see* James T. Hamilton & W. Kip Viscusi, *The Magnitude & Policy Implications of Health Risks from Hazardous Waste Sites*, *in* ANALYZING SUPERFUND: ECONOMICS, SCIENCE AND LAW 55, 58 (Richard L. Revesz & Richard B. Stewart eds., 1995).

alternatives, and (4) determine the various threats the site may pose to public health.[122] Thus, the results of the risk assessment directly influence the subsequent stages of setting cleanup standards and selecting a remedy.[123]

In calculating risk through the use of its baseline risk assessment, the EPA has traditionally used an extremely conservative, "worst case scenario" approach.[124] In most cases, this equates to the assumption that the land will be used someday for residential purposes, and will be a major source of drinking water for residents.[125] However, in the case of brownfield property, this conservatism is often unrealistic. In most brownfields areas, on-site wells are not used for drinking water, due to both official restrictions and the widespread accessibility of city water systems. Furthermore, in most cases, the actual land use has always been commercial or industrial, and will continue to be so into the foreseeable future.[126]

However, what the EPA is primarily attempting to do with its conservative analysis of risk is to protect the public into the unforeseeable future. The EPA, performing a cleanup today, does not know for certain what the future holds. Certainly, the site may be used solely for industrial purposes today, but what about 50 years from now, or 200 years from now? The EPA is apparently very concerned about this uncertainty. Indeed, one study revealed that 90% of the exposure pathways considered in EPA Superfund risk assessments involve future risk scenarios assuming alternative uses of the land.[127] The EPA's concern with what may happen to the land at some point in the distant future if contamination is left on-site is justified in many situations. As we can easily see in our own cities and towns, land uses can change quickly and dramatically, depending on economic and population shifts and on numerous other individual factors. This may be the EPA's only chance to hold the responsible parties liable for cleanup. Therefore, the EPA wants to make as thorough a cleanup as possible. These concerns apply not only at the risk assessment stage, but extend to determination of

---

122. McWilliams, *supra* note 1, at 739.

123. *See* EPA OFFICE OF EMERGENCY & REMEDIAL RESPONSE, RISK ASSESSMENT GUIDANCE FOR SUPERFUND, VOL. I: HUMAN HEALTH EVALUATION MANUAL, PART A (Interim Final) (1989).

124. *See* Alex S. Karlin, *How Long is Clean? The Temporal Dimension to Protecting Human Health Under Superfund*, 9-SUM. NAT. RESOURCES & ENV'T 6, 47 (1994).

125. *See id.*

126. This is especially true where industrial or commercial redevelopment projects have already been planned for the site.

127. *See* McWilliams *supra* note 1, at 741.

cleanup standards and remedy selection, which also rarely consider future use of the land.[128]

The EPA's concern for future harms due to unremediated contamination is supported by the Superfund statute. Superfund expresses a strong preference for permanent remedies, stating: "Remedial actions in which treatment which permanently and significantly reduces the volume, toxicity or mobility of the hazardous substances, pollutants, and contaminants as a principal element, are to be preferred over remedial actions not involving such treatment."[129] This permanence requirement embodies the idea that PRPs and the EPA should be able to walk away from the site after a cleanup without worrying about future danger to the public and the environment. A permanent solution is the only way to absolutely assure long-term protectiveness.

The EPA's conservatism in its risk assessments would be entirely justified if the only assurance available regarding future use patterns was the current use of the land. However, critics point to the large number of institutional and engineering controls that can be used at the site to ensure the continued protectiveness of the remedy, and the continued industrial use of the property. The EPA's "estimated health risks . . . adjusted to reflect actions that have been taken, or might be taken in the future to restrict human access to contaminated materials at the site or to contaminated water supplies."[130] These measures may include capping and fencing the site, posting signs, monitoring and restricting use of groundwater, inserting deed restrictions, zoning requirements, or using restrictive covenants or easements.[131] Often, one or more of these controls is or can be used at a contaminated site, but EPA frequently assumes maximum exposure in its risk assessments anyway.[132]

---

128. *See* Krista J. Ayers, Comment, *The Potential For Future Use Analysis in Superfund Remediation Programs*, 44 EMORY L.J. 1503, 1514-15 (1995).

129. 42 U.S.C. § 9621(b)(1).

130. *See* Katherine D. Walker et al., *Confronting Superfund Mythology: The Case of Risk Assessment and Management*, *in* ANALYZING SUPERFUND: ECONOMICS, SCIENCE AND LAW 25, 37-38 (Richard L. Revesz & Richard B. Stewart eds., 1995).

131. *See generally* John Pendergrass, *Use of Institutional Controls as Part of a Superfund Remedy: Lessons from other Programs*, 26 Envt'l L. Rep. News & Analysis (Envt'l L. Inst.) 10109, 10112 (1996).

132. *See* Walker et al., *supra* note 130, at 38. For example, according to a study performed by Walker et al., 29% of Records of Decision (RODs) indicated that alternative water supplies had been provided, but in 57% of them the EPA assumed current or future use of groundwater. Forty-one percent reported site access restrictions, yet exposure to soils was assumed at each of these sites. *Id*.

B. Federal Proposals for Consideration of Land Use

1. EPA Land Use Directive

In an effort to promote brownfields redevelopment, the EPA recently issued a directive changing its policies and procedures in order to consider the more expansive future use of land at National Priorities List (NPL) sites.[133] Under this guidance, the EPA is first instructed to develop reasonable assumptions regarding future land use at the site.[134] This is accomplished through discussions with local officials and land use authorities, stakeholders, and the public, and through consideration of any available information on probable future use.[135] These reasonable land use assumptions then become the basis of the risk analysis, from which cleanup standards and remedies will often be derived.[136]

Institutional controls necessarily play a big role in this revised EPA risk analysis. First, if the risk does not reach the threshold level under the risk assessment,[137] a risk assessment using these assumptions about future use will not trigger the usual "no action" response.[138] Instead, institutional controls to limit future exposure will be required.[139] Furthermore, institutional controls are to be used whenever the remedy selected leaves waste in place at levels not consistent with residential exposure.[140]

2. Legislative Proposals

In addition to the administrative changes discussed above, lawmakers have proposed a number of legislative changes in the Superfund program that are designed to incorporate consideration of future use at all stages of the process.

---

133. *United States Environmental Protection Agency, Superfund Administrative Reforms Fact Sheet: May 25, 1995 Land Use Directive*, 1995 Daily Envt. Rep. (BNA) 102 (May 26, 1995), [hereinafter *EPA Land Use Directive*].

134. *See id.*

135. *See id.*

136. *See id.*

137. This is currently defined as a 10^{-4} to 10^{-6} incremental cancer risk. *See* 40 C.F.R. § 300.430(e)(2)(I)(A)(2) (1995). Thus, any risk less than one in a million cancer deaths is under the EPA's risk threshold.

138. *EPA Land Use Directive*, *supra* note 133.

139. *See id.*

140. The remedy itself will also affect the future land use. There will necessarily be situations where the remedy requires a more restricted land use than originally anticipated on all or part of the site. Institutional controls will thus be important here as well. *See id.*

The Clinton administration's 1994 Superfund Reform Bill provides a good overview of the ways legislators have sought to incorporate future use into Superfund.[141] This bill would have required the EPA to establish generic cleanup levels for many of the most common and easily identifiable contaminants based on anticipated future land use at the site.[142] One level would be set for residential use, and another less stringent level would be set for industrial sites.[143] These generic standards would thus provide predictability to those responsible for cleaning up contaminated sites and save time and money by allowing the EPA to bypass the time-consuming analysis of protective levels of common contaminants.[144] In addition, the bill provides for a risk assessment protocol incorporating future uses, similar to that adopted by the EPA Land Use Directive, to be used where generic standards are inapplicable, or where unique characteristics at the site require individual attention and analysis.[145]

Currently, neither Superfund nor the NCP takes future use into consideration as an acceptable factor in the remedy selection process.[146] However, under the 1994 Superfund Reform Bill, consideration of future land use is a specifically required criteria at the remedy selection stage.[147] Furthermore, it is in a separate category from the other factors, making it more like a threshold criterion than a balancing factor.[148]

C. General Policy Considerations

Assuming that institutional controls can be trusted to sustain future land use and contamination levels,[149] consideration of future use appears to be a good way to keep cleanup costs reasonable while still protecting human health. However, consideration of future use in remediation raises several issues which should be addressed by policymakers before simply incorporating future use analysis into the Superfund process. These issues include the general justifications of

---

141. For a more recent bill incorporating future use into the process, see S. 1285, 104th Cong. (1995).

142. *See* S. 1834, § 502(d)(1), 103 Cong. (1994); *See also* Ayers, *supra* note 128, at 1519.

143. *See id.* § 502(2)(B); Ayers, *supra* note 128, at 1519-20.

144. *See* Ayers, *supra* note 128, at 1519-20.

145. *See* S. 1834, § 502(d)(3); Ayers, *supra* note 128, at 1520.

146. *See* Ayers, *supra* note 128, at 1520-21; *see also* 42 U.S.C. § 9621(b)(1)(A)-(G) (listing the seven Superfund remedy selection criteria); C.F.R § 300.430(e)(9)(iii)(A)-(I) (providing the nine NCP criteria).

147. *See* S. 1834, § 503(b)(2); Ayers, *supra* note 128, at 1521.

148. *See* S. 1834; Ayers, *supra* note 128, at 1520-21.

149. *See infra,* Part III.C.4 (discussing institutional controls).

considering future use, issues concerning the protection of the environment, and questions regarding the finality of cleanups.

1. Will Consideration of Future Use Lead to Less Expensive Cleanups?

The main justification for consideration of the future use of contaminated property is the assumption that it will lead to less expensive and less time-consuming cleanups. This savings, in turn, will ideally decrease the disincentives attached to purchasing brownfields, and encourage faster remediation of contaminated property. Certainly, complete and permanent cleanups can be very expensive. Often, it is the last percentage of contamination that is the most difficult and expensive to remove. Cleanup to industrial levels would be cheaper to the extent that it makes the removal of that last percentage unnecessary.

However, it is unclear how much less expensive or time-consuming an industrial-level cleanup would be. Such a cleanup would, of course, still have to be protective of public health and the environment. The cleanup would also have to prevent contaminants from migrating off-site, while the institutional and engineering controls themselves could be expensive to implement and maintain. Furthermore, even industrial use of property leads to a number of exposure pathways. For example, there may still be risks to nearby residents or to trespassers, such as children who may gain access to the site and use it as a playground or as a shortcut to adjacent property.[150] This is especially likely where the contaminated property is in an area with mixed-use zoning, and thus in close proximity to residential areas.[151]

An even larger exposure pathway for property with a future industrial use is occupational exposure. This exposure to employees working at the site must obviously still be considered in the risk assessment and subsequent stages of the Superfund process. Indeed, occupational exposure scenarios already account for a large fraction of the highest soil risks at Superfund sites.[152] These risks would still have to be considered and guarded against if one was to factor future use into the risk analysis. This suggests that a cleanup performed to the more "realistic" standards involving industrial use at the site may not always lead to less cleanup.[153] Therefore, consideration of future use may not

150. *See* Solo, *supra* note 22, at 309.
151. *See id.*
152. *See* Walker et al., *supra* note 130, at 39.
153. *See id.* at 40.

remove as many barriers to brownfields redevelopment as its advocates claim.

2. Will the Cleanup Adequately Protect the Environment?

While a lot is said about the continued protection of human health under a system of lower cleanup standards for industrial property, very little has been said about the continued ability to protect the environment under such a system. Although protection of public health, welfare, and the environment[154] is supposedly the focus of the Superfund law, the EPA's emphasis has overwhelmingly been the protection of public health.[155] Similarly, the debate about consideration of future use has been primarily centered on the public health impacts of future use analysis. This sole focus on public health could pose a serious threat to our environment to the extent that health risks can be preventable through relatively inexpensive measures that may not protect the environment.[156] Indeed, the purpose of institutional controls is almost exclusively to protect human health. In comparison, the nonhuman impacts of contamination are a relatively unexplored area.[157] Failure to protect the environment would not only violate the terms of the statute itself, but could have a very negative effect on nonhuman life and ecosystems. Furthermore, given our yet imperfectly understood dependence on the environment and the earth's ecosystems, we have very little idea of how this environmental damage could ultimately affect human health and welfare.

These environmental considerations may, in fact, be implicit in the EPA's traditionally conservative stance regarding future uses. The more thorough the remediation, the more protective it is of all life. There is an arguably inherent value in maintaining the integrity of our soil and groundwater supplies, independent of any direct danger their contamination may pose. After all, while incremental damage to our soil and groundwater resources may not affect human or nonhuman life, the cumulative impact of contamination could be devastating to both humans and nonhumans. Therefore, if future uses are to be considered in assessing risk and crafting remediation strategies, a greater effort must also be made to assess the impacts of lower cleanup standards on

154. *See* 42 U.S.C. §§ 9602(a), 9604(a)(1), 9606(a) (1994).

155. *See* Walker, et al., *supra* note 130, at 29 ("Of the 148 RODs for sites at which actions were taken, 94% . . . emphasized concerns about public health impacts only.").

156. *See id.* (citing R.E. Hegner, *Does Protecting for Human Health Protect Ecological Health?* 14 RISK ANALYSIS 1, 3-4 (1994)).

157. *See id.* at 29-30.

nonhuman life and the environment. Otherwise, we may risk making too great a sacrifice in return for economic growth.

3. A Question of Finality

Superfund's preference for permanent remedies reflects the interest of the EPA and responsible parties in being able to walk away from the site after cleanup.[158] However, recent proposals[159] move away from this preference for permanence and instead focus on the long-term reliability of the remedy. This shift away from permanence requires a greater commitment on the part of the EPA, responsible parties, and the current owner of the property to maintaining the integrity of the remedy. This may include long-term monitoring at all Superfund sites, enforcement of institutional controls, and, possibly, uncertainty for PRPs and landowners as to future liability for remaining contamination. One question policymakers must ask themselves is whether the savings that may occur in the cleanup of contaminated sites through consideration of future use are worth this long-term commitment to the site and the expense that comes along with it. Policymakers must also decide whether this is the best use of government resources. The savings given to those cleaning up a site are ultimately paid for by the taxpayers in the form of increased monitoring and enforcement costs. The result is a government subsidy for sub-optimal cleanups. There may, however, be more effective ways for the government to use its money that would encourage brownfield redevelopment while maintaining a high level of remediation. Financial incentives[160] may, for example, be a more effective and direct subsidy for encouraging brownfields redevelopment.

Another question impacting the finality of the Superfund remedy is who should be liable for additional cleanup if the land is used in violation of the consent decree, or if future scientific advances reveal that the level of cleanup is inadequate? Will the original PRPs be liable, will it be the responsibility of the current owner, or will the government be forced to bear the burden?

---

158. *See* Karlin, *supra* note 124, at 48 ("The drive for quick and permanent cleanups also originates from a general aversion to long-term management and control of the site. In essence, every stakeholder wants to clean up the site and walk away from it, with no further responsibilities").

159. *See supra* Part III.B.

160. *See infra* Part V.

a. Liability for Improper Use of the Land

If the property is remediated to industrial standards, the EPA will presumably enter into a consent decree releasing PRPs from liability for the remaining contamination. If the property owner later violates the terms of the consent decree, he would probably be liable for any harm that results. Making the current owner solely liable would place most of the burden for maintaining the permissible land use on the current owner. Such liability would give the landowner a tremendous incentive to avoid using the land in a way that would violate the consent decree. However, this kind of continuing liability may have a negative impact on the property's marketability. Furthermore, for the threat of liability to be effective, the EPA would have to play a fairly strong enforcement role. Otherwise, if landowners felt that the risk of being caught was slim, due to a lack of enforcement, they would be more likely to give in to temptations to use the land for residential or other improper purposes.

Holding the original PRPs liable for the current landowner's violation of the consent decree would give a larger number of parties an incentive to monitor and enforce the industrial land use. However, this type of perpetual liability may reduce the value of the lower level of cleanup allowed by analysis of future uses. Thus, many PRPs may opt to perform a more permanent cleanup in order to avoid future liability. In that case, lower cleanup standards would provide no real incentive to redevelop brownfields at all. Furthermore, perpetual liability may be unfair to PRPs, who may not have the authority or ability to prevent inconsistent land uses by the current owner. And, after a certain period of time, PRP liability will become ineffective, as more of these entities become judgment proof or simply cease to exist.

b. Liability for Future Scientific Discoveries that Affect Optimal Cleanup Levels

The effect of future discoveries concerning optimal levels of cleanup creates a problem at any Superfund site.[161] Because contamination and cleanup levels are measured and calculated on the basis of our sometimes imperfect current scientific understanding, we may discover at some later point that cleanups performed under these standards are inadequate.[162] This situation is, however, even more problematic in the context of future use analysis, since higher levels of

161. *See* Ayers, *supra* note 128, at 1509.
162. *See id.*

contamination are purposefully being left on-site. Thus, the issue arises as to who should be responsible for additional remediation where the original cleanup does not meet these new standards, or the previously undetectable contamination is discovered.

In the absence of a reopener clause in the consent decree, PRPs would seem to be protected from liability for further cleanup based on new scientific knowledge. However, should the current owner be held liable in this situation? Strict liability for the current owner would reinject uncertainty into the purchase of industrial land, even after it has been "remediated." This could have a very negative impact on the marketability of brownfield property. However, if the government can find no one to blame for the contamination, funds for further remediation would necessarily come from the taxpayers. There are no easy answers to questions such as this. Policymakers are required to make tough decisions concerning the balance between economic development and the success of incentive programs, public health, and allocation of government resources.

4. Are Adequate Institutional Controls Available?

The key to the successful incorporation of future use analysis into the Superfund program is the existence of institutional controls which can be relied on to prevent the inappropriate use of property remediated to industrial standards. These controls should be easily enforceable, and capable of restricting use of the property until contamination is abated through further remediation or natural processes—in other words, into the indefinite future. However, it is not clear that the institutional controls currently available are capable of providing the protections necessary to guarantee the proscribed use of industrial property.

a. Which Existing Institutional Controls are Most Relevant to Brownfields Redevelopment?

There are four types of existing institutional controls that may be capable of preventing future owners from using brownfield sites remediated to industrial levels in a manner inconsistent with the proscribed use of the property.

The first type of institutional control is a restrictive covenant. A restrictive covenant is "a deed restriction that prohibits specific types of development or construction on lands."[163] For a covenant to effectively

163. Pendergrass, *supra* note 131, at 10112.

limit the future use of property, it must "run with the land," meaning that it must be made binding on all subsequent owners. Generally, in order for a covenant to run with the land, a number of conditions must be met, including that the owners have actual or constructive notice, and that vertical and horizontal privity of estate exist.[164] If any condition is not satisfied, the covenant cannot be enforced. However, if the notice element is met, the covenant can usually be enforced through a second mechanism, the equitable servitude.[165] The only difference between an equitable servitude and a covenant (aside from the requirements for each) is the fact that the covenant can be enforced at law (*i.e.*, a monetary remedy can be obtained), and an equitable servitude can only be enforced at equity (where the remedy is usually an injunction).[166]

A third institutional control is the negative easement in gross, which can be granted to the EPA as part of the consent decree. An easement is "a right of use over the property of another."[167] To say that an easement is "negative" means that the owner is prohibited by the easement from doing something otherwise lawful on the owner's property.[168] Furthermore, easements are either "appurtenant," requiring a dominant and a servient tenement, or "in gross," meaning that they are personal to the holder (in this case, the EPA).[169] Many states have established by statute what is known as a "conservation easement," which can itself be characterized as a negative easement in gross.[170] The conservation easement is specifically designed to avoid many of the

---

164. *See* Ayers, *supra* note 128, at 1526. For horizontal privity to exist, the original covenanting parties must have shared some interest in the land independent of the covenant (*e.g.*, grantor-grantee, landlord-tenant, mortgagor-mortgagee). This will usually not exist where the covenant is between the EPA and the original landowner. For vertical privity to exist, the subsequent owner must hold the entire interest held by the covenantor at the time he made the covenant (this does not mean, however, that the parcel cannot be subdivided). *See id.*

165. *See id.* at 1527.

166. *See* Susan F. French, *Toward a Modern Law of Servitudes: Reweaving the Present Strands*, 55 S. CAL. L. REV. 1261, 1275-76 (1982).

167. BLACK'S LAW DICTIONARY 509 (6th ed. 1990).

168. *Id.* at 510. However, negative easements are generally disfavored by the courts, "unless it is an easement for light, air, subjacent or lateral support, or the flow of an artificial stream." *See* Pendergrass, *supra* note 131, at 10111 n.14.

169. *See* Pendergrass, *supra* note 131, at 10111 n.4.

170. *See generally* Uniform Conservation Easement Act, § 1.1, 12 U.L.A. 170 (1996). The Uniform Conservation Easement Act defines a conservation easement as:

> A nonpossessory interest of a holder in real property imposing limitations or affirmative obligations the purposes of which include retaining or protecting natural, scenic, or open-space values of real property, assuring its availability for agricultural, forest, recreational, or open-space use, protecting natural resources, maintaining or enhancing air or water quality, or preserving the historical, architectural, archaeological, or cultural aspects of real property.

difficulties associated with negative easements and may thus provide a more flexible control on future land use.[171]

The fourth type of institutional control relevant to brownfields properties is the reversionary interest. With a reversionary interest, the terms of the conveyance spell out certain conditions concerning the use of the property. If any of these conditions are violated, the land reverts to the original owner or his successors. This mechanism may only be of use where the government takes or already has ownership of the property and makes a conveyance that includes this reversionary interest. If a subsequent owner violates these conditions, the EPA can then exercise its interest and retake title to the property.[172]

b. Problems with Existing Institutional Controls

Enforcement is the biggest problem associated with existing institutional controls. As discussed earlier, use of institutional controls requires a long-term commitment of EPA resources. Each of the above mechanisms can only be enforced by the holder of the interest—in most cases, the EPA. Furthermore, in the case of easements, if the right is not enforced within the statutory period (usually 20 years), the right can be extinguished by prescription. Therefore, the EPA must continue to monitor the land use at the site to ensure that the proper land use is maintained.

Most problematic to the enforcement effort is the fact that the controls outlined above are created and governed by the property laws of each state. EPA's adoption of a nationwide strategy using these state mechanisms as institutional controls "would present significant administrative burdens for those charged with ensuring that the applicable rules were followed in each state, including EPA attorneys who do not generally need to know the property law of specific states."[173] In addition to adding to the administrative burden, the differences between states could easily delay enforcement, or lead to the EPA making mistakes that would make the property restrictions unenforceable. Each mechanism involves a number of complex legal requirements for

---

Id.

171. Conservation easements were created in response to the courts' traditional disfavor for negative easements. *Id.* at 10111 n.15.

172. A reversionary interest is not subject to the Rule Against Perpetuities, because the future interest is in the grantor. *See* JOHN E. CRIBBET ET AL., PROPERTY: CASES AND MATERIALS 302-04 (6th ed. 1990).

173. Pendergrass, *supra* note 131, at 10112.

enforceability. The absence of just one element could invalidate the obligation as to the current owner.

Another risk in using institutional controls is that the implementing institutions themselves may "fail or stop performing their function due to changes in priorities and funding or fundamental changes in the governmental system."[174] With some of these sites, extremely long periods of time pass before the contamination naturally dissipates or additional remediation is performed. Although it may not be enjoyable to think about it, the future of the EPA, and of the country in general, is simply unknown.

Similarly, records and notices may fail because the institutions charged with maintaining the records or publicizing the notice fail to carry out these duties.[175] Furthermore, other forms of notice, such as fences, signs, or markers may be removed, destroyed, or otherwise obliterated over time. Because many of these institutional controls (e.g., covenants and equitable servitudes) require notice to the subsequent owner, this failure to provide adequate notice would lead to the failure of the control itself.

Some of the problems with current institutional controls can be solved by the creation of stronger, more easily enforceable mechanisms. However, other problems are inherent in the use of institutional controls. It is up to policymakers to decide whether the benefits of future use analysis outweigh the increased uncertainty that comes along with the increased use of these controls.

IV. THE ROLE OF VOLUNTARY CLEANUPS

One major factor contributing to the brownfields phenomenon has been the slow pace of Superfund cleanups. According to the Congressional Budget Office, the EPA and liable parties have completed cleanups at only 149 of the 1275 National Priorities List (NPL) sites at an average cost of about thirty million dollars each.[176] Furthermore, the average federal cleanup takes nearly twelve years to complete.[177] However, an even bigger problem has been the enormous (and growing)

---

174. *Id.* at 10122.

175. *See id.*

176. *See* Anderson, *supra* note 12, at 22 (citing *Hearings Before the Subcomm. on Transp. & Hazardous Materials of the House Comm. on Energy & Commerce*, 103d Cong. 7 (1993) (statement of Jan Paul Acton, Assistant Director, Natural Resources and Commerce Division of the Congressional Budget Office)).

177. *See id.*

number of actual and suspected contaminated sites—approximately 100,000—that do not meet the EPA's risk threshold, but that are instead being handled under various state programs.[178] One reason for this backlog has been that certain elements of state and federal hazardous waste laws have discouraged the cleanup of contaminated properties. In addition to the disincentives created by such factors as the high and often unpredictable costs of cleanup and joint and several liability, private parties are often discouraged from voluntarily undertaking cleanups for fear that the voluntary remediation of a site will trigger a state or federal regulatory assessment, or that they will spend millions of dollars at a contaminated site only to be told that the work fails to meet state or federal cleanup standards.[179]

One potential way to speed up the pace of remediation and thus decrease the number of brownfield sites is for the federal government to change its policies in order to encourage the voluntary cleanup of contaminated sites. One way to do this is for the federal government to establish a program providing a federal system of incentives for parties who voluntarily clean up contaminated sites. This type of program has been used by approximately twenty-two states to encourage cleanups and has achieved a fair measure of success.[180] However, state voluntary cleanup programs (VCPs) have been held back by the system of dual state and federal liability for contamination. Because the federal government doesn't recognize these state VCPs, a cleanup and release under a state program does not release responsible parties from federal liability.[181] This risk of continuing liability (whether actual or perceived) has limited the effectiveness of state VCPs. Thus, as a second potential option for encouraging voluntary cleanups, the federal government should consider establishing policies that would increase the power and effectiveness of these state programs.

---

178. *See id.* (citing ENVIRONMENTAL LAW INSTITUTE, AN ANALYSIS OF STATE SUPERFUND PROGRAMS (1993)).

179. *See* SUBCOMMITTEE ON INVESTIGATION & OVERSIGHT OF THE HOUSE COMM. ON PUB. WORKS & TRANSP., ADMINISTRATION OF THE FEDERAL SUPERFUND PROGRAM, H.R. REP. NO. 103-35, at 38-39 (1993).

180. *See* Geltman, *supra* note 11, at 8. For example, the Minnesota program successfully remediated 1500 acres of contaminated property in the three years after it went into operation. *See* Judith Evans, *Cleaning up the Nation's Brownfields*, WASH. POST, Nov. 25, 1995, at E1.

181. *See* Anderson, *supra* note 12, at 26.

A. Establishing a Federal Voluntary Cleanup Program

Despite the apparent interest in VCPs evidenced by political and market developments and the statements of industry advocates, the EPA has for over a decade failed to establish such a program to harness the power of transactional incentives to seek a certain and final resolution to liability.[182] While Superfund does discourage the EPA from approving voluntary cleanups, the EPA is arguably given enough discretionary authority under the statute to develop a voluntary cleanup policy or program that would offer finality to those engaging in such cleanups.[183] However, a better and clearer method of establishing a mechanism for encouraging voluntary cleanups is through a legislative amendment to the statute.[184]

1. Characteristics of Voluntary Cleanup Programs

The term "voluntary cleanup program" is a term of art. It can encompass any number of procedures and incentives designed to encourage remediation of contaminated property. However, there are a few elements generally associated with these programs.

a. Limited Participation

First, the goal of VCPs should be to provide property owners, prospective purchasers, and developers with incentives to participate in the clean-up of contaminated property *for which they bear no responsibility*.[185] The term "responsibility" does not mean "liability." Instead, it means a connection with the activities that caused the contamination of the property. Therefore, although current owners are statutorily designated as "responsible parties," they are often allowed to fully participate in state VCPs if they have no actual connection with the contamination other than their ownership of the property.[186] VCPs can

182. *See* Buzbee, *supra* note 1, at 47-48.

183. *See id.* at 57-66.

184. In addition to the EPA's questionable statutory ability to establish such a program, the EPA's bureaucratic stance toward cleanup and PRPs would prevent it from establishing a voluntary cleanup program. In a 1985 policy on settlements, for example, the EPA acknowledged that its policies were discouraging voluntary cleanups, but nonetheless stated its reluctance to accept less than 100% private funding of cleanups. *See id.* at 75-76. The EPA justifies this on the grounds that Superfund's strict, joint and several liability of PRPs indicates that the government should seldom be left holding unreimbursed cleanup costs. *See id.* (citing EPA Request for Public Comment on Interim CERCLA Settlement Policy, 50 Fed. Reg. 5034 (1985)).

185. Sweeney, *supra* note 1, at 105.

186. *See* Geltman, *supra* note 11, at 8.

be distinguished from the prospective releases and exemptions for purchasers discussed earlier,[187] because a voluntary cleanup program is designed to induce these nonresponsible parties to actually remediate the property, rather than to simply purchase or develop it. Thus, from an environmental standpoint, voluntary cleanup programs are a superior mechanism to exemptions and prospective releases, which do not always guarantee that the property will be remediated. In addition, limiting these programs to nonresponsible parties protects the basic liability system, and avoids giving incentives to truly responsible parties, who many feel do not deserve such incentives.

b. Streamlined Processes and Other Incentives

A second feature of many VCPs is a more streamlined regulatory system with predictable cleanup standards, designed to make cleanup faster and cheaper. This may include such features as expedited administrative procedures, limited administrative oversight of cleanups,[188] or pre-set cleanup standards which may or may not take into consideration the future use of the property.[189] For example, the Michigan cleanup program provides a choice of three different "types" of cleanups, based on either background levels, standardized risk figures (assuming residential use), or a site-specific risk assessment which takes into consideration factors such as land and resource use.[190] Massachusetts similarly provides three methods to characterize risk posed by sites based on either pre-determined numeric soil and groundwater standards, those standard figures adjusted for site-specific characteristics, or site-specific risk assessments.[191] Some states have even streamlined remedy selection by allowing the VCP participant to choose the cleanup technology, subject to state approval, or to select a remedy without first doing a feasibility study.[192] Allowing these less stringent requirements

187. *See supra* Part II.A.

188. For example, some states have certified private remediation contractors and laboratories to provide cleanup oversight and guidance, and to sign off on the cleanup when it is completed. *See* MASS. REGS. CODE tit. 310, § 40.0169; OHIO REV. CODE ANN. § 3746.071 (Banks-Baldwin 1995). Washington and Wisconsin have taken this a step further and do not provide oversight at all. Instead, they provide detailed guidance on how sites should be remediated. The agency then approves or rejects the cleanup based on a site cleanup report submitted by the parties. *See* WIS. STAT. ANN. 144.442 (West 1989 & Supp. 1995); WASH. REV. CODE ANN. § 70.95c.200, 95c.220 (West 1992 & Supp. 1996); *see also* Anderson, *supra* note 12, at 24.

189. *See supra* Part III for a discussion of issues concerning programs with lower cleanup standards based on future use.

190. *See* Anderson, *supra* note 12, at 24 (citing MICH. ADMIN. CODE § r.299.5705-5819).

191. *See id.* at 24. (citing MASS. REGS. CODE tit. 310, § 40.0902).

192. *See id.*

may be justified in the case of voluntary cleanup programs, because without such incentives these properties probably would not be cleaned up as quickly, or in some cases would not be cleaned up at all.

In addition to a more streamlined cleanup process, VCPs can also provide positive incentives in the form of tax write-offs, state contribution to the cleanup, low interest loans, or other financial incentives.[193] These incentives may be offered to all who voluntarily remediate under the program, or only to those who redevelop the property after remediation.

c. Sign-off on Cleanups

Third, because lack of finality is an impediment to site cleanups, VCPs seek to bring finality to the cleanup process in the form of a formal sign-off on the remediation, and possibly a release from future liability.[194] This sign-off by the agency can take many different forms, and provide varying degrees of protection.[195] The lowest levels of protection are provided by a no-further-action letter or a certificate of completion.[196] These generally only certify that the cleanup was completed in accordance with industry standards, and do not necessarily bar public enforcement actions.[197] These types of releases may reassure some purchasers, developers and lenders, but they do not entirely eliminate the fear of continuing liability that often stands in the way of voluntary cleanups.

A more certain form of release is the covenant not to sue, which releases VCP participants from future liability in actions brought by the regulatory agency concerning the property voluntarily cleaned up.[198] Furthermore, contribution protection and protection from other risks of future liability can be provided as well.[199] However, with increased finality, the agency must have increased safeguards to ensure that VCP participants have investigated and disclosed all known contamination, and have fully complied with the agreement.

193. *See infra*, Part V (discussing various financial incentives).
194. Anderson, *supra* note 12, at 25.
195. *See id.*
196. *See id.*
197. *See id.*
198. *See* Anderson, *supra* note 12, at 25.
199. *See supra* Part II.A.3.a. (discussing future risk to purchasers under PPAs). Many of the same considerations apply here as well.

2. Effectiveness of a Federal Voluntary Cleanup Program

Using the states as models, the federal government has the tools to put together a program designed to promote voluntary cleanup. However, would such a program be effective when used on the federal level?

The first problem is determining the appropriate scope of the program. Should a federal VCP deal with only those sites which meet the current standards for federal involvement at a site, or should it include all contaminated sites? Restricting a federal voluntary cleanup program to only those sites currently subject to a federal remedial action would severely limit the usefulness of such a program. If restricted, the program would only apply to a very small number of highly contaminated sites. Thus, very few voluntary cleanups would actually be performed, since so few sites would be eligible, and of these, many would be so contaminated that unless the incentives to voluntarily remediate were extremely high, few would want to volunteer.

A more effective program would be one that included all contaminated sites.[200] The EPA, however, would not be able to handle the administration of voluntary cleanups for all contaminated sites without a significant increase in its budget and size. To avoid this difficulty, the federal government could establish the program's standards, incentives and remedy selection processes, and let the states perform the program's administrative functions.[201]

A federal VCP such as this would undoubtedly preempt existing state programs, and thus limit the states' abilities to creatively respond to the unique problems preventing voluntary cleanup within their borders. However, some environmentalists believe that states are already moving too quickly to loosen cleanup regulations, and are thus jeopardizing public health and safety.[202] This may be in part because cleaning and redeveloping property provides tangible benefits to the states in the form of increased tax revenues, employment, property values (and thus increased property taxes), and a physically and environmentally more attractive setting for local residents and businesses.[203] States thus have a greater motivation than the federal government to encourage voluntary cleanups. Federal control of voluntary cleanups would ideally inject a

200. *See generally* Buzbee, *supra* note 1, at 100-04.

201. *See id.* at 101 & n. 224 (discussing division of the administration of VCPs, based upon the size or magnitude of anticipated cleanups, as an alternative to complete delegation).

202. *See* Evans, *supra* note 180, at E1.

203. *See* Buzbee, *supra* note 1, at 110.

measure of rationality and objectivity into the process, since federal lawmakers and administrators would be indifferent to many of these more local factors.

However, this indifference and objectivity could also be a barrier to the program's effectiveness in encouraging cleanups. The federal government risks not providing sufficient incentives or putting too many restrictions on the program to make it truly worthwhile for volunteers to clean up contaminated property. Because states have such a direct interest in promoting voluntary cleanups, they are more likely to craft cleanup programs that provide the incentives that will actually promote these cleanups. First, states are in the best position to evaluate their own needs and limitations. Incentives that would encourage voluntary cleanups in California may be very different from those that would encourage such cleanups in Massachusetts. The social, geographic, economic, and other differences across our country would not all be served by one uniform program. Individual state programs allow consideration of these different circumstances, and lead to experimentation to achieve the right balance of requirements and incentives.

Furthermore, states may be more willing than the federal government to make economic tradeoffs or accept more of the burdens of cleanup themselves, rather than forcing all of the costs on private parties. This may lead to states offering more attractive incentive packages to potential volunteers than would be provided by a federal program. This, of course, raises the question whether states should be allowed to make such tradeoffs. If states are given free reign to design their own voluntary cleanup programs, they may be tempted to promote economic growth at the expense of public health and the environment by allowing sub-optimal levels of cleanup.[204] Empirically, however, this has not occurred in the existing state programs.[205] Furthermore, it is not clear that competition for business redevelopment will create such a "race to the bottom" among states through use of their voluntary cleanup programs, or whether a federally controlled program would be any better.[206]

On the flip side, establishment of a federal VCP takes away the discretion of states to choose not to offer incentives for voluntary

---

204. *See id.* at 100.

205. *See generally* Richard L. Revesz, *Rehabilitating Interstate Competition: Rethinking the 'Race-to-the-Bottom' Rationale for Federal Environmental Regulation,* 67 N.Y.U. L. REV. 1210 (1992).

206. *See id.*

remediation, or to just not offer those particular incentives included in the federal program. Some states may feel that the selected federal program includes measures such as reduced standards for voluntary cleanups, or consideration of future use, that would have long-term negative effects on the environment, or on their citizens. Alternatively, they may simply disagree with the methods chosen.

The only way to avoid this problem would be to allow states to exempt themselves from the federal program, similar to the current practice of allowing states to regulate more stringently than federal standards. However, this could easily defeat the goals of the program. If enough states exempted themselves because of objections to the federal scheme, the result could be fewer voluntary cleanups, instead of more. Furthermore, a federal VCP does not necessarily solve the problem of overlapping state and federal liability which currently hinders state programs.

B. Encouraging the Use of State-Designed Voluntary Cleanup Programs

Another way the federal government could encourage voluntary cleanups is to establish policies that promote the use of state-designed VCPs. As discussed above, state programs have been hindered by the continuing threat of federal liability to parties engaging in state voluntary cleanups. This general perception of risk will continue absent assurances from the federal government.

1. Administrative Solutions

One way that the EPA has sought to solve the problems of actual and perceived future federal liability that are hindering state VCPs is through the issuance of "comfort letters" on a case-by-case basis.[207] These letters assure those undertaking state voluntary cleanups (and those that they subsequently deal with, such as lenders or purchasers) that they will not be held liable if they comply with state VCPs.[208]

The EPA can further encourage the use of voluntary cleanup programs by expanding this practice of providing assurances to VCP participants. It would, however, be an extremely time-consuming process for the EPA to provide comfort letters only on a case-by-case basis. Instead, the EPA could provide categorical assurances to sites cleaned up

207. *See* Steve Lerner, *Brownfields of Dreams,* 17 AMICUS J. 15, 17 (1996).
208. *See id.*

under the VCPs of particular states. For example, EPA Region V has sought to bolster state cleanup programs by amending the Superfund Memorandum of Agreement with each midwestern state to provide that the EPA will not take further action at sites remediated under state authority.[209] If this practice of issuing categorical assurances were expanded, the perception of continuing liability could be substantially abated. However, these comfort letters and categorical assurances do not actually bar enforcement actions or private suits by subsequent owners. Thus, these administrative mechanisms are of limited value in providing certainty in the area of state VCPs.[210]

2. Federal Certification of State Voluntary Cleanup Programs

Because the EPA may be limited in promoting state VCPs by the Superfund statute, resource availability, and its own culture, a legislative solution may be the most efficient and complete way to encourage state-designed voluntary cleanups. One way to enhance the power of state VCPs is by setting up a mechanism for federal certification of these programs.[211] Certified VCPs would then be able to operate, for the most part, without intervention by the federal government.[212] This may decrease costs such as those associated with obtaining federal permits. Further, if cleanups conducted under certified programs were automatically released from federal liability, certification would increase the value of state sign-offs and releases given pursuant to state voluntary cleanups, and may encourage more cleanups to be voluntarily undertaken.

Federal certification of VCPs also allows federal approval and oversight of state programs and procedures. This may be a good idea to the extent that we fear that state motivations and political dynamics make lax cleanups a risk. The initial federal approval, along with subsequent

209. *See* Andrew, *supra* note 17, at 30.

210. The EPA could solve this problem by actually negotiating releases from liability with parties which voluntarily clean up contaminated sites pursuant to state VCPs. However, this would be even more time-consuming than site-specific comfort letters, since the EPA would be giving up its rights, and would thus have to be more careful.

211. Certified state VCPs should probably apply to only the low- and medium-level sites these state programs are currently designed to deal with. This would ensure the continuity of VCP operations. Furthermore, states may lack the technical and financial capabilities to deal with more contaminated sites.

212. *See* H.R. 1621, 104th Cong. (1995); *see also* 140 CONG. REC. E160 (daily ed. Feb. 10, 1994) (statement of Rep. Visclosky) ("By certifying State voluntary cleanup programs at the federal level, we would eliminate the threat of Federal EPA action on sites already deemed clean by State programs").

federal monitoring of the program (to maintain compliance with federal standards), would ensure that cleanup levels and techniques are appropriate from a scientific and health perspective. This would provide a valuable check on the incentives and procedures being offered by state VCPs, while allowing states the discretion to design and administer their own programs if they so choose.

However, care must be taken by Congress and the EPA to avoid the imposition of overly burdensome certification requirements. If the requirements are too specific, states could begin to lose control of their VCPs. The federal government then runs the risks discussed previously[213] of discouraging innovation, experimentation, and state-specific programs. Furthermore, if states feel that control is being taken from them by certification, or that the requirements are overly burdensome, they will forego certification, and the problems of overlapping liability will remain. However, this reluctance on the part of states, if their programs are certified, to surrender control may be overcome by giving the states additional incentives, such as technical assistance or access to Superfund money.[214]

V. FINANCIAL INCENTIVES

Liability considerations aside, the high cost of conducting site investigation and remediation is a major discouragement to investment in brownfield properties. Remediation of contaminated properties to safe levels can often cost into the millions of dollars.[215] In addition, even the costs of investigation and site assessment can sometimes be prohibitive.[216] These high costs, even when easily ascertainable, can often make developing a brownfield property more expensive than developing a greenfield site. Therefore, one method of encouraging the cleanup and reuse of contaminated brownfield sites is for the government to offer positive financial incentives to parties engaging in beneficial activities. These incentives can take a wide variety of forms, from tax abatements on the local level to federal tax credits. This section identifies and examines the federal government's options for providing such

---

213. *See supra* Part IV.A.

214. A less extreme option would be for the federal government to only offer states financial and technical support for the use and expansion of voluntary cleanup programs, without releasing volunteers from federal liability. *See* H.R. 3800, S. 1834. However, this would ignore the central problem of overlapping liability, and would thus be an incomplete solution.

215. *See* Anderson, *supra* note 12, at 22.

216. *See* McWilliams, *supra* note 1, at 735-38.

positive financial incentives in order to encourage redevelopment of brownfield properties.

A. Threshold Questions

There are two main threshold questions to any discussion of financial incentives. First, what types of behavior are we trying to encourage?, and second, to whom should these financial incentives be made available? The answers to these questions can dramatically affect the choice and structure of the government incentive, and thus the result achieved through its use.

1. What Types of Behavior are We Trying to Encourage?

Financial incentives act as a government subsidy on certain types of behavior. Therefore, it is essential that policymakers first determine what actions they want to subsidize, and thus encourage. Do we want to use these incentives to encourage parties to simply clean up contaminated property, or do we want them also to redevelop it, and if so, how? Some may argue that simply cleaning up the property is the most important aspect of brownfield redevelopment. In most cases, if a party remediates property, the assumption is that he is likely to go on to develop it himself, or to sell or lease it to someone who will. Furthermore, the argument continues, the primary goal of government should be to get these properties cleaned up—not to worry about whether they will be redeveloped or not.

However, if we give incentives for simply cleaning up property, there is a risk that speculation in brownfield property will result. If, for example, tax credits for remediation were available, companies might have an incentive to clean up and then sell property simply to obtain the credits. In this case, redevelopment would not necessarily occur, and the company would have captured the full benefit of the incentive for itself.[217]

In addition, even if it is assumed that the property will be redeveloped once it is cleaned up, the future use of the property may be important. The question here is how much control we want over how the property is redeveloped, and whether we want to subsidize redevelopment activities regardless of their future economic and

---

217. *See* I.R.C. § 42 (1994). The Housing and Urban Development (HUD) tax credit program combats these negative incentives by requiring investors "to self-regulate for fifteen years or else risk losing the credits." Solo, *supra* note 22, at 320.

environmental impacts on the community. If the whole purpose for promoting brownfields redevelopment is to somehow benefit the surrounding community, we should care what type of business or activity will be conducted on the former brownfield site. Until this point, redevelopment has been discussed as a virtue in and of itself. However, there is a tremendous range of redevelopment quality. Depending upon what type of project it is, redevelopment can be good or bad. If, for example, the new development is a hazardous waste treatment facility, or a high-polluting industry, residents may be in a worse position from a health standpoint than they were before the cleanup and redevelopment. Similarly, if the new use does not bring jobs or other economic benefits to the community, those most affected by the problem of brownfields will not benefit from the government expenditures that encouraged the redevelopment. Thus, if some conditions concerning redevelopment are not attached to the granting of financial incentives, this use of tax money might only benefit the remediator or redeveloper, and not those most in need of assistance. In that case, the government may have been able to provide more of a benefit to the community by spending its money on a community center or on job retraining for residents rather than on brownfields redevelopment.

There are several ways that the grant of financial incentives can be made contingent upon the beneficial use of remediated property. One way is to require a party seeking to remediate and develop a brownfield site to have its remediation proposal approved before financial incentives are granted. This approval could come from a government authority, or from the affected community itself. In any case, some input from the community should be received, since those directly affected are in the best position to evaluate their own needs. They are also in the best position to determine what level of future risk they are willing to accept in return for redevelopment.

However, this approval requirement should not become another time-consuming stumbling block to redevelopment. Therefore, the standards for determining whether there is an adequate benefit to the community should be clear, as should the actual approval process. In addition, the process should be relatively short, and should be conducted in the initial stages of the investigation period, to give the developer fair notice as to whether he qualifies for incentives or not. The developer may then be able to change the project or abandon it entirely. As a safety valve, the incentives should be revocable if the developer's plans radically change, or if the developer falsely represents the impacts of the project in order to get approval.

However, because of the potential complications associated with consideration of future redevelopment in granting incentives, it may also be wise to require such consideration and approval only for a limited number of major financial incentives. Where incentives are smaller, or less amenable to these types of conditions, it may be better to give them unconditionally in order to encourage cleanup and redevelopment in general.

2. To Whom Should Financial Incentives Be Made Available?

Second, we must decide who should be allowed to take part in governmental financial incentives for cleanup and redevelopment. The main consideration here is the liability of the party. We may wish to limit these incentives to only those parties which have no current liability for the property's contamination (*i.e.*, non-PRPs). This type of restriction on incentives would be designed to attract outside investors. One justification for this type of restriction is that legal liability is enough of an incentive to make PRPs remediate. In addition, it may be argued that parties should not be rewarded for doing something that they are otherwise obligated to do, or for fixing the damage they may have caused in the first place. Furthermore, giving PRPs financial incentives to remediate could be attacked on the grounds that these parties have already received a past benefit from the contamination of the property.

On the other hand, it may be preferable to restrict incentives for redevelopment more broadly to those parties which bear no responsibility for the activities which caused the contamination, as was discussed above in the context of voluntary cleanup programs.[218] This would restrict incentives on the basis of the participating parties' "innocence," and would thus lessen the liability of some otherwise liable parties.

Finally, we may choose to place no restrictions on who can take part in these government financial incentives. However, if we established no such liability based restrictions, and allowed PRPs to reduce their liability through the use of government incentives, the liability system would be undermined to some extent. On the other hand, we may feel that the liability system is too harsh, and that some of the burden of cleanup should be placed on the taxpayers. After all, it may be argued, society in general received a past benefit from the contamination of the property, in the form of lower prices for those products whose manufacture caused the contamination. Financial incentives would seem

218. *See supra* Part IV.A.1.a.

to be a good way to place some of this burden on the government, and thus on the taxpayers. However, this goal may be more efficiently accomplished by changing the structure of the liability system rather than reducing the amount of liability once it has already been assessed.

B. Types of Federal Financial Incentives

While there are a variety of ways to structure financial incentives at all levels of government, the main mechanisms through which the federal government can provide financial incentives for brownfields cleanup and redevelopment are grants, loans, and the tax system.

1. Grants

There are a number of ways in which the federal government can use grants to encourage brownfields redevelopment. Because grants do not have to be repaid, they are a direct subsidy for the behavior the government seeks to encourage, and are thus the most valuable type of assistance available to those remediating and redeveloping brownfield sites. However, they must also be carefully controlled to ensure that the government is actually subsidizing activities that will benefit the public.

Federal grants can be given directly to private parties, or to the states. Granting money to the states in the form of block grants may be the preferred method of delivering grant assistance, since the states are in a better position than the federal government to distribute and control the use of the funds. However, through its use of Superfund, the federal government, in effect, already provides direct grant assistance to individuals. Whenever the federal government agrees to pay for a share of the cleanup costs at a site, it reduces the amount responsible parties would otherwise have to pay. This gives PRPs a benefit similar to a grant in order to facilitate the cleanup of contaminated property. The Clinton Administration's Superfund Reform Bill sought to increase this type of financial assistance by providing federal funding for "orphan shares"—that is, the shares of judgment-proof PRPs.[219] This would alleviate some of the burden placed on the remaining PRPs by joint and several liability, but would force the government to pay for a much larger share of cleanups across the country.

A more flexible way for the federal government to provide grant assistance to the brownfields redevelopment effort is through grants to the states. One recent example of this type of assistance is the EPA

219. *See* S. 1834, 103d Cong. (1994); *see also* H.R. 1285, 104th Cong. (1996).

Redevelopment Grant Pilot Program, which is part of the EPA's Brownfields Action Agenda.[220] Under this program, the EPA provides grants of up to $200,000 each to sixty redevelopment projects in economically depressed areas across the country.[221] These funds are to be used to creatively address the barriers to redevelopment at brownfield pilot sites, and to pull together the community, developers, investors, lenders, and other interested parties in order to generate interest in redevelopment of the site.[222] These grants may be used only to "assess, identify, characterize, and plan remedial activities at contaminated sites targeted for redevelopment."[223] This gives states and localities a great deal of discretion, while limiting the use of funds to those activities that most benefit the community, rather than those benefiting only developers and investors. However, these private parties do ultimately benefit from the federal grant through money saved on site assessment, advantages created by a strong state and community commitment to the project, and through additional incentives offered by the state or locality.[224]

While the EPA pilot program has provided much needed incentives to redevelop brownfields, it covers only sixty sites, limiting its usefulness to the redevelopment effort.[225] A broader program of brownfield redevelopment grants to states was proposed by Representative Philip English (R-PA) in the last session of Congress. English's bill proposes that a fraction of the Superfund be set aside each year to provide grants of up to $10 million for remediation of brownfield sites.[226] Use of these funds is limited to properties not on the NPL or subject to a planned or ongoing remedial action of any type.[227] In addition, future federal action at the site is prohibited if the site has been remediated in compliance with an EPA approved state program.[228] In effect, this grant program provides for the delegation of specific brownfield properties to the states, while providing a large percentage of

220. UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, BROWNFIELDS PILOTS, QUICK REFERENCE FACT SHEET (1996) (EPA Pub. No. 500-5-96-004) [hereinafter, BROWNFIELDS FACT SHEET].

221. *See id.*

222. EPA DEMONSTRATION PILOT GUIDELINES, *supra* note 16, at 2.

223. *Id.* at 3.

224. In many cases, the federal grant may put states and localities in a better financial position to offer incentives of their own.

225. *See* BROWNFIELDS FACT SHEET, *supra* note 220.

226. H.R. 2742, 104th Cong. (1995).

227. *See id.*

228. *See id.*

the cleanup costs.[229] Among the weaknesses of this program is the risk of enriching PRPs at the expense of taxpayers. Therefore, it may be wise to restrict this type of grant to only those sites which have been abandoned and taken over by the state. Alternatively, there could be some mechanism included that allows the federal government to recoup its expenditures from viable PRPs. Furthermore, this proposal provides more assistance than may be necessary to redevelop brownfield properties.[230] If instead of requiring the government to pick up the full cost of remediation we could encourage private parties to contribute to the cleanup or remediate the property themselves, taxpayers could save a great deal of money.

A more narrowly tailored grant program was proposed by Representative Sherrod Brown (D-OH). Brown's proposal promotes brownfields redevelopment by providing grants to local communities to be used for site characterization and assessment.[231] This type of assistance can provide communities and developers with valuable information on the extent of contamination at a site. Some brownfield sites may be redeveloped with a minimal investment, but local communities cannot be sure of this until an assessment is performed. However, these assessments are not being performed in many cases. Many communities do not have the funds to conduct these activities on their own, and private parties are often unwilling to make even this initial investment in a site that may prove to be too unprofitable due to its contamination.

Federal grants for site assessment would give communities and potential investors more up-front information concerning the type and extent of contamination at a site. This would in turn give potential investors some general information on the possible cost of remediation. Because uncertainty concerning the extent of contamination and cost of remediation has been a major factor in discouraging brownfields remediation, this relatively small expenditure may go a long way toward encouraging redevelopment. Furthermore, this type of assistance may be especially important to economically distressed communities, where the extent of contamination at brownfields sites may not otherwise be known due to a greater scarcity of community funds and a lack of interest in the area on the part of developers. More certain information on

---

229. *See id.* Under the proposal, 20% of the total cost of remediation must be covered by the state. *See id.*

230. *See* H.R. 2472.

231. H.R. 2178, 104th Cong. (1995).

contamination may provide these communities with a tool to draw investors back into the area.[232]

A final way for the federal government to encourage brownfields redevelopment through grant assistance is to deliver assistance through the Community Development Block Grant Program.[233] This existing HUD program is aimed at rejuvenating depressed communities through housing and small business development.[234] The primary objective of this program is "the development of viable urban communities, by providing decent housing and a suitable living environment and expanding economic opportunities, principally for persons of low and moderate income."[235] The goals of brownfield redevelopment are quite compatible with these objectives. Indeed, it is difficult to deal with community redevelopment without addressing the brownfields problem. Linking environmental assistance grants to the Community Development Block Grant Program may ensure that the money will not only go to assisting the neediest communities in their efforts, but will be linked to a larger redevelopment scheme for the entire community.[236]

2. Loans

Another way the federal government can encourage brownfields redevelopment is through the use of loans. Federal loans can be used to make available the capital necessary to fund any stage of brownfields redevelopment, from site assessment to construction. As discussed previously,[237] it is often difficult for parties interested in brownfields redevelopment to obtain the funds necessary to carry out their projects. The availability of federal loans would remove this barrier. As an additional incentive, loans could be provided at a low interest rate, or entirely free of interest.

Although loan programs do not provide as much of an incentive for redevelopment as grants, they are less burdensome to the government. Because they must be repaid, their use does not have to be as heavily safeguarded, making them a more flexible mechanism as well. Indeed,

---

232. One way to further limit the program would be to provide grant assistance only to those communities the EPA determines to be "economically distressed." For other communities, loans for investigation and site assessment could instead be made available.

233. *See* Solo, *supra* note 22, at 323 (citing 24 C.F.R. §§ 570.1-570.913 (1994)).

234. *See id.*

235. Housing and Community Development Act of 1974, 42 U.S.C. § 5301(c) (1994); *see* Solo, *supra* note 22, at 323.

236. Solo, *supra* note 22, at 323.

237. *See supra* Part II.B.

loans could be used in almost any situation where a grant may be considered. The only difference would be the effectiveness of each as an incentive to redevelopment.

As with grants, loans can be provided to the states and localities, or to private individuals. However, in many cases it may be easier administratively for the federal government to provide these funds to the states, and to allow the states to administer the loan program. One example of this is a bill introduced by Rep. Ralph Regula (R-OH) that would have the federal government loan money to states in order to set up or expand revolving loan funds that would in turn provide loans to private individuals for brownfields cleanup.[238] To keep the interest rates low, such a program could also provide loans to states at a below market rate of interest. States could in turn cover their administrative expenses by setting the interest on loans to private parties at the higher market rate.[239]

One possible drawback to federal loans, however, is the potential liability faced by lenders, which currently discourages investment in brownfield sites.[240] If the federal government's liability as a lender is not limited, either by statutory limitations on lender liability generally, or based on the government's role as a lender specifically, a government loan program for brownfields probably would not improve the flow of capital, or the difficulties associated with obtaining a loan.

Another drawback to a loan program is that the funds would only be available to credit worthy developers. It would thus exclude many potential developers, who would therefore have fewer incentives to redevelop brownfield property. However, this may in fact be advantageous in that it may screen out developers that are not likely to remain financially viable until the completion of the project.

3. Tax Incentives

The federal government has often used the tax system to affect behavior. Examples of this are the limitation on capital gains taxes, designed to encourage investment, and deductions for charitable contributions, intended to encourage people to contribute more freely to charities.[241] The tax system could similarly be used to encourage cleanup and development of brownfield properties. Because the structure

---

238. H.R. 1620, 104th Cong. (1995).

239. *See generally* H.R. 2178, 104th Cong. (1995) (providing interest-free loans to states for remediation of brownfield sites).

240. *See infra* Part II.B.

241. *See* I.R.C. §§ 1(h), 170 (1994).

and system of administration are already in place, delivering incentives through the tax system is an efficient way to give incentives directly to redevelopers. Furthermore, the potential for tax audits can control the improper use of these incentives, and if the conditions of the incentive are not fully complied with by the taxpayer, incentives can later be easily taken away by the IRS.

Brownfields tax incentives can be given through the use of deductions, exemptions, or credits. Deductions and exemptions are usually less valuable to taxpayers than credits, since the return on deductions and exemptions is roughly 1 to 2.5, whereas on credits it is 1 to 1.[242] This is because deductions and exemptions simply reduce the amount of taxable income, whereas credits are a decrease in the actual tax that must be paid to the government.

In addition, the value of these incentives depends on how quickly taxpayers are allowed to take them. Due to the time value of money, a deduction or credit taken today is much more valuable to a taxpayer than a deduction or credit that must be taken over a longer period of time. The longer a taxpayer must wait for a deduction or credit on expenditures that have already been made, the longer the taxpayer is denied the productive use of those funds.[243] Currently, the cost of environmental remediation can be taken as a deduction by businesses.[244] However, there has been a great deal of confusion within the IRS as to whether cleanup costs are "deductible as business expenses in the year incurred, or alternatively, if these costs are to be capitalized under Section 263 of the Internal Revenue Code."[245] If these costs are capitalized, they must be written off over a period of up to ten years.[246] Because companies would prefer to take the deduction immediately as a current expense, one incentive recently proposed by the Clinton Administration allows companies that agree to clean up and redevelop urban sites to write off these costs

---

242. Assuming the highest current tax rates (see I.R.C. §§ 1,11), a one dollar deduction would lower the income tax liability 35 cents for a corporation and 39.6 cents for an individual, a partnership, or an S-Corporation. A one dollar tax credit, on the other hand, would lower the income tax by one dollar for any entity.

243. This use can be anything from investment activities to simply receiving the interest on these funds.

244. *See* I.R.C. § 162.

245. Steven G. Black, *The Continuing Saga of Environmental Cleanup Costs: Current Deduction Allowed under the Restoration Principle of* Plainfield-Union*,* B.Y.U. L. REV. 1321, 1321 (1995); *see also* Mary Lou Hopinn, *To Expense or to Capitalize? The Impact of Federal Income Tax Treatment of Environmental Cleanup Costs Under CERCLA.* 19 DAYTON L. REV. 679 (1994).

246. *See*, Mark A. Hoffman, *Superfund Reform Talk Continuing,* BUS. INS. March 18, 1996 at 2.

immediately.[247] Such a change could cost the government two billion dollars over seven years, but may make such projects much more economically attractive to businesses.[248]

Tax credits can be the government's most powerful tool for encouraging brownfields redevelopment. This mechanism provides the federal government with a fairly easy way to place conditions on the receipt of incentives; thus, tax credits may be more easily controlled than most other types of incentives. A bill proposed by Rep. William Coyne (D-PA) provides a good example of what can be done with tax credits in the area of brownfields remediation. This bill would amend the Tax Code to allow a 50% tax credit to be taken over a period of five years for the cleanup of certain brownfield sites.[249] In order to target the credit at the most productive sites, it would be restricted to those sites that have had no productive use for at least one year, would be unlikely to undergo redevelopment without tax credit assistance, have a strong likelihood of creating jobs and expanding the tax base after redevelopment, and would be remediated and redeveloped in a short period of time.[250] In addition, the credit would only be available to "innocent owners" of polluted property, defined as any party who was not a PRP before the enactment of the credit, or related to such a party.[251] These determinations are to be made by the EPA, which has the power to certify or revoke the tax credit.[252] The result is a 50% federal subsidy on brownfields cleanups. And unlike deductions which can only be taken to the extent of taxable income,[253] credits can result in a payment from the federal government, regardless of tax liability.

VI. CONCLUSION

It is ironic that the environmental statutes designed to protect the public from the dangers of hazardous waste have resulted in the economically and environmentally devastating creation of brownfield sites across the nation. There are, however, many things that can be done to try to both eliminate and prevent brownfields. This paper has

---

247. *See id.*

248. *See id.*

249. H.R. 2846, 104th Cong. (1996).

250. *See* 142 CONG. REC. E16 (daily ed. Jan 4, 1996) (statement of Rep. Coyne); *see also* H.R. 2846.

251. *See* 142 CONG. REC. E16 (daily ed. Jan 4, 1996) (statement of Rep. Coyne); *see also* H.R. 2846.

252. *See* H.R. 2846.

253. Excess deductions (i.e. net operating losses), however, can be carried back for three years, or carried forward for fifteen years. After that time, they are forfeited. *See* I.R.C. § 172.

examined a few of the more commonly debated options for brownfields redevelopment at the federal level. However, this is not meant to be an exhaustive list of redevelopment options. The federal government has a wide array of tools and resources at its disposal which can be used to influence or eliminate the factors which cause brownfields. Furthermore, there is much that can and has been done at the state and local levels to respond to the problem.

However, many of the existing proposals for brownfields redevelopment are relatively new, and have not been well thought out. They are instead often a reaction to a commonly perceived problem, and to a general dissatisfaction with the hazardous waste liability system. Policymakers should evaluate the full effects of these proposals and then make a well-reasoned choice concerning how to best spark redevelopment.

There are no easy answers to the brownfields problem. Indeed, there are advantages and disadvantages to every potential solution. In the end, redevelopment of brownfields may require that we make some difficult decisions regarding such things as the degree of risk we are willing to accept, ideas of culpability for contamination, and how much we truly value the environment. However, it is not an insurmountable problem. It is just one that should not be entered into blindly.