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A Case Study of Sustainable Development: Brownfields

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SECTION: ARTICLES**ELR-SUMMARY:**

[Editors' Note: In June 1992, at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, the nations of the world formally endorsed the concept of sustainable development and agreed to a plan of action for achieving it. One of those nations was the United States. In September 2002, at the World Summit on Sustainable Development, these nations will gather in Johannesburg to review progress in the 10-year period since UNCED and to identify steps that need to be taken next. In anticipation of the Rio + 10 summit conference, Prof. John C. Dernbach is editing a book that assesses progress that the United States has made on sustainable development in the past 10 years and recommends next steps. The book, which is scheduled to be published by the Environmental Law Institute in June 2002, is comprised of chapters on various subjects by experts from around the country. This Article will appear as a chapter in the book. Further information on the book will be available at www.eli.org or by calling 1-800-433-5120 or 202-939-3844.]

TITLE: A Case Study of Sustainable Development: Brownfields**AUTHOR:** Joel B. Eisen

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TEXT:

By the 1980s, deteriorating hulks of abandoned factories and overgrown vacant lots in many American cities served as notable symbols of urban decline. These sites had earned the label of "brownfields," which the U.S. Environmental Protection Agency (EPA) now defines as "abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination." n1 A brownfield site can be as small as a corner lot or as large as an abandoned steel mill, though former industrial properties attract the most attention. According to one estimate there were as many as 500,000 such sites in the United States. n2 The extent of contamination present at these sites after decades of industrial activity was unknown. In the meantime, businesses fled increasingly to suburban and exurban locations known as "greenfields," motivated in part by the widespread perception of these locations as "clean."

n1 Office of Solid Waste and Emergency Response, U.S. EPA, *Brownfields Glossary of Terms*, at <http://www.epa.gov/swerosps/bf/glossary.htm#brow> (last visited Nov. 15, 2001).

n2 See CHARLES BARTSCH & ELIZABETH COLLATON, COMING CLEAN FOR ECONOMIC DEVELOPMENT 1 (1995) (citing estimates prepared by the U.S. General Accounting Office and Office of Technology Assessment).

While the problem of urban blight and flight to suburban greenfields has many causes, it largely arose because of the unintended chilling effect of the federal Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), n3 and its state-law analogues, on brownfields redevelopment. n4 Therefore, brownfields laws and policies typically aim directly at modifying those environmental laws thought to be most responsible for stifling urban development. The brownfields discussion is somewhat retrospective: it gives us an opportunity to learn from our mistakes and "avoid re-creating Brownfields and continuing their legacy." n5 If that were the only important aspect of brownfields revitalization, the link to sustainable development would probably not be readily apparent. However, each decision to remediate and reuse brownfields triggers a much wider variety of concerns: documenting and eliminating environmental health risks while promoting reinvestment, creating jobs, slowing the acceleration of suburban "greenfields" development, decreasing polarization of communities, and fostering public involvement in every aspect of redevelopment efforts. Each brownfields site thus provides an excellent opportunity for us to discuss how to reverse decades of urban decay and to alleviate the unchecked, wasteful development in suburban America. n6 These are central concerns in sustainable development policy, and the link between brownfields policies and sustainable development is therefore quite tangible. Not surprisingly, brownfields developers are often quick to call their projects core elements of urban sustainability efforts.

n3 42 U.S.C. §§ 9601-9675, ELR STAT. CERCLA §§ 101-405.

n4 See generally Joel B. Eisen, "Brownfields of Dreams"?: Challenges and Limits of Voluntary Cleanup Programs and Incentives, 1996 U. ILL. L. REV. 883 (1996).

n5 U.S. EPA, SUSTAINABLE REDEVELOPMENT OF BROWNFIELDS, available at <http://www.epa.gov/swerosps/bf/sustain.htm> (last visited Nov. 15, 2001).

n6 See, e.g., U.S. EPA, SUSTAINABLE BROWNFIELDS MODEL FRAMEWORK 3 (1999) [hereinafter SUSTAINABLE BROWNFIELDS MODEL FRAMEWORK]; NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL, ENVIRONMENTAL JUSTICE, URBAN REVITALIZATION, AND BROWNFIELDS: THE SEARCH FOR AUTHENTIC SIGNS OF HOPE: A REPORT ON THE PUBLIC DIALOGUES ON URBAN REVITALIZATION AND BROWNFIELDS: ENVISIONING HEALTHY AND SUSTAINABLE COMMUNITIES 9 (1996). State brownfields programs are described in Linda K. Breggin & John Pendergrass, *Voluntary and Brownfields Remediation Programs: An Overview of the Environmental Law Institute's 1998 Research*, 29 ELR 10339 (June 1999).

The laws and policies designed to address brownfields revitalization are therefore an excellent vehicle for assessing progress in the United States toward many of Agenda 21's n7 objectives, including those relating to land development. Foremost among these objectives are Article 7 (promoting sustainable human settlement development), Article 8 (integrating environment and development in decisionmaking, including the role of citizen participation), and Articles 23-32 (relating to involvement of a range of citizens in government decisionmaking); the discussion in other chapters is also relevant. n8 In addition, Agenda 21 calls for programs aimed at stemming or reversing suburban "sprawl," n9 and American states' sprawl-fighting "smart growth" strategies often target brownfields as part of a more comprehensive set of land use policies. n10

n7 United Nations Conference on Environment and Development, Agenda 21, U.N. Doc. A/CONF.151.26 (1992) [hereinafter Agenda 21].

n8 See *id.* PP7, 8, 23-32. For an excellent discussion of population and an example of how other Agenda 21 topics relate to brownfields revitalization, as population growth and mobility and other demographic trends relate directly to the pace and scope of development in cities and suburbs, see Anne H. Ehrlich & James Salzman, *The Importance of Population Growth to Sustainability*, 32 ELR (May 2002).

n9 See Agenda 21, *supra* note 7, P7.18 (observing that "sound urban management is essential to ensure that urban sprawl does not expand resource degradation over an ever wider land area and increase pressures to convert open space and agricultural/buffer lands for development").

n10 For a discussion of smart growth programs, see generally JOHN R. NOLON; WELL GROUNDED: USING LOCAL LAND USE

AUTHORITY TO ACHIEVE SMART GROWTH (Envtl. L. Inst. 2001); Patricia E. Salkin, *Smart Growth at Century's End: The State of the States*, 31 URB. LAW. 601 (1999).

An interesting paradox is evident when one compares state and federal brownfields revitalization activities to the objectives described in Agenda 21. The brownfields programs have many desirable features, and are widely cited as an outstanding example of innovation in American environmental protection. However, substantial changes would be necessary to make them true benchmarks of sustainable development. Certainly there is some recognition that brownfields revitalization should be carried out in a sustainable manner. n11 The President's Council on Sustainable Development (PCSD) views brownfields as part of a U.S. sustainability strategy. Its flagship report calls upon the United States to: "Revitalize brownfields--which are contaminated, abandoned, or underused land--by making them more attractive for redevelopment by providing regulatory flexibility, removing process barriers, and assessing greenfield development to reflect necessary infrastructure costs." n12 EPA's *Sustainable Brownfields Model Framework* is more detailed, incorporating a comprehensive set of proposals designed to guide revitalization within a sustainable development perspective. n13

n11 See generally **Joel B. Eisen**, *Brownfields Policies for Sustainable Cities*, 9 DUKE ENVTL. L. & POL'Y F. 187 (1999) [hereinafter **Eisen**, *Brownfields Policies for Sustainable Cities*].

n12 PRESIDENT'S COUNCIL ON SUSTAINABLE DEVELOPMENT: SUSTAINABLE AMERICA: A NEW CONSENSUS FOR PROSPERITY, OPPORTUNITY, AND A HEALTHY ENVIRONMENT FOR THE FUTURE 20 (1996).

n13 See generally SUSTAINABLE BROWNFIELDS MODEL FRAMEWORK, *supra* note 6.

Yet the states and federal government have a mixed record of following through on that promise that brownfields revitalization could be done sustainably. The PCSD's recommendations are only advisory (as is the EPA's model framework), and despite some excellent efforts to bring federal expertise to bear on the brownfields problem, there still is nothing resembling a federal "sustainable brownfields" program. Nor will there ever be such a program, in part because the states view the brownfields problem as an unwanted outgrowth of a harsh federal mandate. As for the states, which have been innovators in the field, there is sparse recognition of any nexus between their programs and sustainable development.

Critiquing how brownfields programs expanded without much attention to developments in the international environmental arena will illustrate some ways to alter them to comport with Agenda 21 and other prerequisites for sustainable development. Another interesting aspect of this analysis for the Rio + 10 review is its timing. The state and federal programs have mushroomed since 1992; for example, while a small minority of states had "voluntary cleanup programs" 10 years ago, virtually every state has one now, and there is considerable and increasing experience with them. If adjustments to these programs should be developed to comport with the prescriptions of Agenda 21 this would be an excellent time to consider making them.

A caveat is in order at the outset: this discussion offers only a brief introduction to this rapidly expanding field. Much has been written about it, including two treatises and numerous law review articles, and more is forthcoming at a rapid pace. n14 For now, it is this Article's aim to describe some ways in which existing state and federal programs could be enhanced to achieve Agenda 21's objectives.

n14 See, e.g., 1-2 BROWNFIELDS LAW AND PRACTICE: THE CLEANUP AND REDEVELOPMENT OF CONTAMINATED LAND (Michael Gerrard ed., 1998); BROWNFIELDS: A COMPREHENSIVE GUIDE TO REDEVELOPING CONTAMINATED PROPERTY (Todd S. Davis & Kevin D. Margolis eds., 1997); Robert H. Abrams, *Comment: Superfund and the Evolution of Brownfields*, 21 WM. & MARY ENVTL. L. & POL'Y REV. 265 (1997); William W. Buzbee, *Brownfields, Environmental Federalism, and Institutional Determinism*, 21 WM. & MARY ENVTL. L. & POL'Y REV. 1 (1997); **Eisen**, *Brownfields Policies for Sustainable Cities*, *supra* note 11; **Eisen**, *supra* note 4; Bradford C. Mank, *Reforming Brownfield Programs to Comply With Title VI*, 24 HARV. ENVTL. L. REV. 115 (2000); Wendy E. Wagner, *Learning From Brownfields*, 13 J. NAT. RESOURCES & ENVTL. L. 217 (1997-1998); Michael Allan Wolf, *Dangerous Crossing: State Brownfields Recycling and Federal Enterprise Zoning*, 9 FORDHAM ENVTL. L.J. 495 (1998).

The Brownfields Problem

The genesis of the brownfields problem is complicated. These sites serve as a powerful reminder of the systemic problems of urban America, and identifying a single reason for decay and disinvestment is impossible. n15 But one catalyst is often cited as virtually paramount: the chilling impact of environmental laws on urban redevelopment. Foremost among these laws is CERCLA, the nation's primary hazardous waste remediation law. CERCLA is a comprehensive remedial statute that gives the federal government extensive powers to order government agencies and private parties to clean up dangerous hazardous waste sites. Cleanup efforts under CERCLA focus on the most dangerous hazardous waste sites in the nation, especially those sites listed on the national priorities list (NPL). n16 EPA and the U.S. Department of Justice initiate numerous lawsuits each year against site owners and other parties to force cleanups of NPL sites or recover funds used by the federal government from the "Superfund" to clean up sites. These lawsuits and other actions initiated by administrative processes typically require private parties to incur substantial costs in remediating contaminated sites. CERCLA lawsuits are usually protracted expensive proceedings that involve hundreds of parties. n17

n15 See, e.g., Heidi Gorovitz Robertson, *One Piece of the Puzzle: Why State Brownfields Programs Can't Lure Businesses to the Urban Cores Without Finding the Missing Pieces*, 51 RUTGERS L. REV. 1075 (1999) (discussing nonenvironmental factors involved in business location decisions).

n16 40 C.F.R. pt. 300, app. B.

n17 This stems in large part from the ability of potentially responsible parties (PRPs) to reduce their CERCLA liability by suing each other for contribution. See 42 U.S.C. § 9613, ELR STAT. CERCLA § 113.

CERCLA's sweeping remedial nature n18 is evident in the strictness of the statutory scheme, where liability is imposed broadly to force polluters to pay response costs related to hazardous waste sites. Federal courts breathed life into the statute, defining statutory terms expansively to close loopholes in the remedial scheme. n19 CERCLA liability is strict and no element of causation is required. n20 Under the statute, the current "owner or operator" of a CERCLA site faces liability, so it is quite likely that the present owner of a brownfield site could be held liable for cleanup costs even if that owner did not directly cause the contamination (assuming it could not avail itself of CERCLA's relatively limited defenses). n21 Because courts have held that CERCLA liability is joint and several, the owner might face a bill for all of the site's cleanup costs simply by virtue of owning the site. n22

n18 See *Key Tronic Corp. v. United States*, 511 U.S. 809, 814, 24 ELR 20955, 20956 (1994) (stating that CERCLA "is a comprehensive statute that grants the President broad power to command government agencies and private parties to clean up hazardous waste sites").

n19 See, e.g., *United States v. Northeastern Pharmaceutical & Chem. Co.*, 810 F.2d 726, 17 ELR 20603 (8th Cir. 1986).

n20 See *United States v. Monsanto Co.*, 858 F.2d 160, 19 ELR 20085 (4th Cir. 1988).

n21 42 U.S.C. § 9607, ELR STAT. CERCLA § 107.

n22 See *United States v. Chem-Dyne Corp.*, 572 F.Supp. 802, 13 ELR 20986 (S.D. Ohio 1983), *But see* *United States v. Township of Brighton*, 153 F.3d 307, 29 ELR 20045 (6th Cir. 1998) (stating that defendant can avoid liability if it proves divisibility); *In re Bell Petroleum Servs., Inc.*, 3 F.3d 889, 23 ELR 21474 (5th Cir. 1993) (same); *United States v. Alcan Aluminum Corp.*, 990 F.2d 711, 23 ELR 20706 (2d Cir. 1993); *United States v. Alcan Aluminum Corp.*, 964 F.2d 252, 22 ELR 21124 (3d Cir. 1992) (same).

Even though many brownfields sites have not been examined for contamination, their history suggests that they are not usually among the most dangerous sites; however, if high levels of contamination are discovered, a site could be added to the NPL. n23 This uncertainty poses a grave threat to any would-be developer of a brownfields site: the history of CERCLA is replete with complaints about high remedial and transaction costs, n24 excruciatingly slow progress of

cleanups, n25 and cleanup standards perceived by some parties as excessively conservative in their assumptions. Even if a brownfields site did not land on the NPL, the developer could not confidently avoid environmental liability. Most states have environmental cleanup laws analogous to CERCLA in their scope, and other state and federal environmental laws could come into play at a given site depending on the nature of past activities or the contamination found there.

n23 See **Eisen**, *supra* note 4, at 902-03.

n24 For a perceptive early assessment of the statute's impact, see David E. Jones & Kyle E. McSlarrow, . . . *But Were Afraid to Ask: Superfund Case Law, 1981-1989*, 19 ELR 10430, 10430 (Oct. 1989) ("Otherwise known as the full employment act for lawyers, [CERCLA] has generated a prodigious amount of litigation since its enactment. . .").

n25 See *Hearings on Superfund Reauthorization Before the Subcomm. on Finance and Hazardous Materials*, 105th Cong. (1998) (testimony of Peter Guerrero, Director, Environmental Protection Issues, U.S. General Accounting Office, noting that the average cleanup takes 11.5 years to complete).

The threat of CERCLA liability and responsibility for cleanup costs presented serious problems for prospective brownfield site developers. Uncertainty regarding potential environmental liability also contributed to a decline in the amount of investment capital available for urban sites. A line of cases under CERCLA imposed liability on lenders even though they or their borrowers did not directly cause contamination. n26 Lenders responded by refusing to make loans on urban properties thought to be contaminated, particularly those where any kind of industrial activity had taken place. n27

n26 See, e.g., *United States v. Fleet Factors Corp.*, 901 F.2d 1550, 20 ELR 20832 (11th Cir. 1990). The recent statute clarifying the status of lender liability under CERCLA has not completely ended the uncertainty. See, e.g., Douglas A. Henderson, *Congressional Reform of Lender and Fiduciary Liability Under CERCLA and RCRA: Is Fleet Factors Finally Dead?*, 114 BANKING L.J. 210 (1997).

n27 See W. Alfred Mukatis & James F. Nielsen, *Real Estate Lending Activities of Commercial Banks Under Superfund*, 24 REAL EST. L.J. 358 (1996), for a survey of commercial banks' practices.

State and Federal Responses

Even though they have limited ability to remedy the CERCLA problem, the states have taken the lead in creating laws and policies designed to spur brownfields revitalization. The relatively slow pace of federal reforms, the widespread perception that state laws also needed overhauling, and even the states' antipathy to CERCLA as part of an overall hostility to the federally centralized, enforcement-driven American environmental regulatory regime have all spurred the rise of state programs. The primary impetus for brownfields redevelopment at the state level has come from programs known broadly as voluntary cleanup programs (VCPs).

Federal action on the brownfields front is multifaceted, and includes legislative efforts to reform CERCLA directly and/or enact freestanding laws targeting brownfields, administrative reform initiatives by EPA and other federal agencies, and targeted programs such as loan funds, grants, and tax incentives for brownfields projects.

State VCPs

Virtually every state has revamped its environmental cleanup laws (mostly in the 1990s) to establish some form of program that targets brownfields. n28 These programs are voluntary and usually begin when a prospective participant approaches state regulators with a proposal for investigating and remediating a brownfield site through the state's program. This makes the brownfields setting markedly different from the enforcement-driven model of existing state and federal hazardous waste laws, where a private party's first contact with regulators is typically a notice informing it that it faces liability under the statute.

n28 Nearly every state has an enforcement-based approach for remediating contaminated sites modeled on the federal CERCLA law. *See generally* JAMES M. McELFISH JR. & JOHN PENDERGRASS, REAUTHORIZING SUPERFUND: LESSONS FROM THE STATES (Envtl. L. Inst. 1999). Some statutory and/or regulatory VCP laws modified existing cleanup laws to encourage voluntary cleanups at sites believed to pose less risk; other states created new laws that operate in parallel with existing enforcement schemes. *See generally* Eisen, *supra* note 4.

Prior to proposing a project for a VCP, it is common for a developer to sound out state and local government authorities about economic development incentives and take other steps to evaluate project merits. A savvy developer has therefore assessed whether it would be beneficial to remediate the site before initiating contact with environmental regulators, even though there is usually no requirement of any sort that any governmental unit approve of the developer's plans before it applies to take part in a VCP. Because cleanups are driven by developers, VCPs promote devolution of key decisions to the private sector. This can be tremendously advantageous if a brownfields project will improve the condition of a neglected site and result in overall benefits to the community, but this outcome is by no means guaranteed.

VCPs often target urban sites but relatively few locations are ineligible. n29 In the spirit of encouraging private sector actors to initiate redevelopment activities, most VCPs allow anyone willing to remediate the site--the site's owner, prospective purchaser, other interested party, or even, in some cases, the party responsible for contaminating the site--to participate, though some restrict eligibility to prospective purchasers or current property owners. Each VCP is unique, but the investigation, remediation, and liability protection process, generally speaking, is similar in each state, and confers three principal advantages on the participant:

n29 Even rural sites can be addressed in most programs. Most states only limit site eligibility to sites not currently the subject of enforcement actions, including sites not proposed for or listed on the NPL. *See* Eisen, *supra* note 4, at 921-22.

Streamlined Administrative Procedures

The VCP process can be much quicker than a cleanup under CERCLA. Major decisions (does the site need remediation? what remedy will be used?) are made in months, not years. To conclude the process and become entitled to receive liability protection, many participants need only perform a relatively inexpensive preliminary investigation to determine the level of contamination. n30 If remediation is not necessary, the process ends. At more contaminated sites, the participant cleans up the site to state standards, but paperwork and other administrative requirements are less burdensome than those of the normal remediation process.

n30 *See id.* at 920.

Relaxed Cleanup Standards

The CERCLA cleanup standard and state standards that parallel it embody a preference for permanent site cleanup. The cleanup standard or the cost of meeting it cannot be determined in advance; a complicated risk assessment and management process must be performed anew at each site. By contrast, state VCPs employ modified standards based on standards allowing higher levels of risk. These standards are often less difficult and less costly to meet than those of CERCLA or its state counterparts, particularly if the participant can use engineering controls (for example, encasing the contamination in concrete) or institutional controls (for example, creating deed restrictions limiting the use of the site). Many VCPs also provide a measure of predictability by allowing the participant to choose specific statewide "generic" cleanup standards set on a statewide basis that allow participants to remediate sites to pre-set levels based on the type of contamination found at the site and the specific environmental medium. n31 Referring to these one-size-fits-all standards, a participant can get a much clearer picture of cleanup requirements and costs in advance. Even participants

who choose to meet site-specific, risk-based standards are assured that compliance costs will be lower.

n31 *See id.* at 939-42.

Liability Protection

The participant may obtain relief from future state liability for past contamination upon completion of the cleanup (or preliminary investigation if a cleanup is unnecessary). The forms and scope of liability protection vary widely from state to state. n32 Some state regulators issue "no further action" letters promising they will not pursue further enforcement action once cleanups are complete. n33 Other states offer more comprehensive liability protection, such as releases from liability under applicable state statutes, certificates of satisfactory completion, and covenants not to sue brownfields developers. n34

n32 *See id.* at 950-65.

n33 *See, e.g.*, N.J. ADMIN. CODE tit. 7, § 26C-3.3, app. A § V(7) ("no further action statement").

n34 *See, e.g.*, ME. REV. STAT. ANN. tit. 38, § 343-E(6) (release); CAL. HEALTH & SAFETY CODE § 25398.15(a) (certificate of completion); OHIO REV. CODE ANN. § 3746.12(A) (covenant not to sue).

Federal Brownfields Initiatives

As noted above, federal brownfields initiatives have taken a number of forms. On the legislative front, there have been several attempts to overhaul CERCLA since the 1986 Amendments, all of which have failed to pass muster in the U.S. Congress. n35 Recognizing this logjam, Congress has passed and President Bush has signed a new law aimed at the brownfields problem. n36 The "Small Business Liability Relief and Brownfields Revitalization Act" of 2002 combined two bills: one provided small businesses relief from liability under CERCLA (new Title I) and one addressed brownfields issues (new Title II). The brownfields title establishes grant funds and programs to assist state VCPs, and perhaps most importantly from the perspective of the states and developers, sets limits on federal enforcement under CERCLA for VCP participants (subject only to limited "reopeners" on EPA's part) and protects contiguous property owners, prospective purchasers, and innocent landowners from CERCLA liability. n37

n35 *See, e.g.*, Michael J. O'Grady, *Going Nowhere Fast: The Environmental Record of the 105th Congress*, 29 ELR 10085 (Feb. 1999); Frona M. Powell, *Amending CERCLA to Encourage the Redevelopment of Brownfields: Issues, Concerns, and Recommendations*, 53 WASH. U. J. URB. & CONTEMP. L. 113, 121-24 (1998).

n36 Small Business Liability Relief and Brownfields Revitalization Act, Pub. L. No. 107-118, 115 Stat. 2356 (2002).

n37 *Id.* §§ 211 (grants and loans), 221 (contiguous property owner exemption), 222 (prospective purchaser exemption), 223 (innocent landowner exemption), 231 (enforcement protection for VCP participants).

EPA has also adopted policies intended to reduce the risk of liability. The guidance on "prospective purchaser agreements" focuses on liability concerns n38 and intends to reduce the risk that a party will face CERCLA liability after purchasing a brownfields site. EPA has also acted to extend the protection against state liability afforded by the states at the conclusion of the VCP process. Amended Superfund Memoranda of Agreement (SMOA) n39 with individual states commit EPA to refrain from pursuing enforcement action at sites in the state in question once those sites have been the subject of successful action in a VCP. Thus, the spectre of federal liability has all but vanished. The SMOAs and the new brownfields law, coupled with the prevailing sense that the EPA is unlikely to target its limited enforcement resources to sites which have been the subject of state scrutiny, have erased enough uncertainty to lead to a

dramatic increase in the number of sites addressed in VCPs. n40

n38 U.S. EPA, Announcement and Publication of Guidance on Settlements With Prospective Purchasers of Contaminated Property and Model Prospective Purchaser Agreement, 60 Fed. Reg. 34792 (July 3, 1995). EPA's proposed draft guidance document on Superfund Memoranda of Agreement (SMOA), withdrawn in the face of opposition from state regulators and other commenters, was also oriented to this concern. See U.S. EPA, Final Draft Guidance for Developing Memoranda of Agreement (MOA) Language Concerning State Voluntary Cleanup Programs, 62 Fed. Reg. 47495 (Sept. 9, 1997).

n39 SMOA are agreements, authorized by regulations promulgated under CERCLA, between the states and EPA regarding the management of remediation activities at NPL sites. See 40 C.F.R. § 300.505. The amended SMOAs extend the reach of the state-federal compacts to sites addressed in VCPs.

n40 See Eisen, *Brownfields Policies for Sustainable Cities*, supra note 11, at 219 n.165 (noting that New Jersey and Pennsylvania have addressed thousands of sites).

Beyond EPA's administrative reforms, there have been numerous other federal initiatives to spur brownfields revitalization. A tax deduction for qualified remediation expenses associated with brownfields, originally scheduled to end in three years, was extended in 1999 and again in 2000. n41 Other initiatives by federal agencies and departments have established pilot projects, provided financing (including grants and loan funds), and created other incentives for brownfields redevelopment. n42 These programs have had some success; for example, EPA's brownfields "pilot" projects designed to test cleanup policies (but stopping short of actual remediation activities) have led to productive redevelopment activities at urban sites. n43 However, none has had the comprehensive impact on individual redevelopment projects of the state VCPs, so the remainder of this section is directed primarily to an evaluation of those programs.

n41 See Pub. L. No. 106-554, § 1(a)(7) (codifying H.R. 5662, 106th Cong.) (2000); Pub. L. No. 106-170, § 511 (1999). The deduction provision, now slated to sunset in 2003, is found at 26 U.S.C. § 198.

n42 See Eisen, *Brownfields Policies for Sustainable Cities*, supra note 11, at 194, 200-01; Larry Schnapf, *Financing Development of Contaminated Properties*, NAT. RESOURCES & ENV'T, Winter 1999, at 465, for descriptions of these federal programs. Prof. Michael Allan Wolf has analyzed the link between federal brownfields incentive programs and other inner-city redevelopment schemes, principally federal initiatives establishing enterprise zones and empowerment communities. See Wolf, supra note 14, at 509-12.

n43 See Eileen Gauna, *EPA at 30: Fairness in Environmental Protection*, 31 ELR 10528 (May 2001).

Sustainable Brownfields Revitalization: Assessing Existing Programs

Brownfields revitalization is widely viewed as successful, given that thousands of sites have been remediated in state programs. To cite just one example, Pennsylvania boasts that it has remediated more than 500 sites in its Land Recycling Program. n44 At these sites, new economic activity is often taking place where once there was a vacant lot or a factory shell. The reallocation of responsibilities for environmental protection that brownfields programs achieves is also noteworthy. In principle, the states' leadership role in brownfields revitalization fulfills Agenda 21's requirement that national governments delegate institutional responsibility for attaining sustainable development "to the lowest level of public authority consistent with effective action." n45 This does not necessarily mean, however, that the states are acting in a manner so as to promote sustainable development. One potential danger is that sites viewed as successfully and completely remediated today turn out not to be so in the future, either through repollution of the site from a new use or discovery of existing contamination not remediated in the initial effort. While it is too early to predict whether that will be a major concern, the risk is sufficiently problematic to justify efforts by states to pay more attention to the matter.

n44 See PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, LAND RECYCLING PROGRAM, 2000 ANNUAL

REPORT iv (2000), available at <http://www.dep.state.pa.us/dep/deputate/airwaste/wm/landrecy/facts/annual/2000/> (last visited Nov. 15, 2001).

n45 Agenda 21, *supra* note 7, P8.5(g).

Another area that deserves increased focus is the minimal extent to which state programs require developers to communicate with the affected public throughout the revitalization process. In practice the failure to mandate communication has not always resulted in bad outcomes, particularly where smart developers have on their own initiative involved local communities as partners in the process. Yet if much of attaining urban sustainability consists of creating and nurturing decisionmaking partnerships among all affected entities, meaningful dialogue and community participation ought to be required from the outset and not just undertaken when it is in the developer's self-interest to do so. Finally, it is a matter of some concern that the state VCPs typically leave many basic decisions--such as the use to which a remediated site will be put--in the hands of brownfields developers at individual sites. This does not necessarily ensure a suboptimal outcome, as there have been many success stories in the field. However, analyses of brownfield site remediation activities show that success is more likely if revitalization takes place with careful attention to the current and future needs of the cities in which sites are located, rather than proceeding in an ad hoc fashion.

Reflecting these and other concerns, this Article proposes that states consider altering their programs in three ways, so as to incorporate the basic sustainability building blocks of "procedural integration," intergenerational equity, and public participation. It will be a challenge to the states to adopt these changes without making their programs much more bureaucratic and cumbersome (and thus resembling the existing enforcement-driven environmental programs), particularly if they revamp VCPs to include more inclusive public participation provisions. The challenge may not, however, be as great as some would claim. For example, the typical objection to comprehensive community involvement is that it is likely to slow or stop otherwise meritorious projects. However, one commentator, analyzing a study of sites addressed in several EPA pilot projects, notes that communities were successfully engaged without delays in project progress. n46 With respect to other aspects of brownfields revitalization, the same spirit of innovation that spurred the creation of brownfields programs in the first place can and should be deployed to offer developers a streamlined alternative to environmental enforcement programs *and* simultaneously ensure that Agenda 21's requirements have been met.

n46 See Gauna, *supra* note 43.

Procedural Integration (VCP Program Procedures)

A good starting point is to assess the strengths and weaknesses of the VCPs themselves, and in particular their streamlined procedures for getting sites remediated and reused. As noted earlier, an important feature of any land use system for sustainable development is "procedural integration": the design and implementation of procedures at all levels of government that require early, simultaneous, and coordinated consideration of social, environmental, and economic goals. n47 The applicable Agenda 21 requirement is found in Chapter 8, which calls for "the progressive integration of economic, social and environmental issues." n48 Regulators must ensure consideration of all environmental costs and benefits from a project's inception, using appropriate analytical tools. n49

n47 See also John C. Dernbach, *Sustainable Development: Now More Than Ever*, 32 ELR 10003 (Jan. 2002) [hereinafter Dernbach, *Now More Than Ever*]; John C. Dernbach, *Sustainable Development as a Framework for National Governance*, 49 CASE W. RES. L. REV. 1 (1998); Eisen, *Brownfields Policies for Sustainable Cities*, *supra* note 11, at 206.

n48 Agenda 21, *supra* note 7, P8.4.

n49 *Id.* PP8.5(a)-(b), 8.6.

This requirement aims to avoid unwise and potentially irreparable decisions, and to circumvent potential conflicts among regulatory agencies (for example, a commerce promotion department authorizes a project that an environmental regulator finds destructive to the environment).ⁿ⁵⁰ EPA's *Sustainable Brownfields Model Framework* provides an excellent example of how a brownfields project might be structured in an integrated manner. There are 10 major steps in a project, from development of the concept through site evaluation, remediation, and final reuse. At every one of these steps, the framework envisions feedback designed to enable government officials to better evaluate the project and its progress.ⁿ⁵¹

ⁿ⁵⁰ See Eisen, *Brownfields Policies for Sustainable Cities*, *supra* note 11, at 206-07.

ⁿ⁵¹ See SUSTAINABLE BROWNFIELDS MODEL FRAMEWORK, *supra* note 6.

Yet this elaborate feedback mechanism does not resemble the reality of most brownfields projects. Integrated procedures are typically not incorporated in most VCPs at two important steps: evaluation of a project's merits and supervision of the cleanup process. The developer may need local approvals for incidental matters such as traffic plans, but no comprehensive review of the project, at its outset, is required under the typical VCP statute or pursuant to most local land use ordinances (in the latter case, the inquiry is typically limited to whether the proposed use is consistent with its zoning--for example, an industrial use on the former location of a factory).ⁿ⁵² As for supervising the cleanup process, some VCPs allow the participant to operate essentially independently with little or no state oversight--an increasing trend involves allowing the developer to use a state-licensed consultant to supervise the cleanup, so that state regulators are involved only in reviewing the process at its conclusion. Only a minority of states are actively involved in approving work plans and in supervising the cleanup.ⁿ⁵³

ⁿ⁵² See Patrick J. Skelley II, *Public Participation in Brownfield Remediation Systems: Putting the Community Back on the (Zoning) Map*, 8 *FORDHAM ENVTL. L.J.* 389, 399-400 (1996).

ⁿ⁵³ See Eisen, *supra* note 4, at 965-70.

The typical justification for this hands-off approach is that VCPs represent a streamlined alternative to the enforcement-driven model of environmental protection. States believe that developers, not regulators, should retain as much control as possible over brownfields projects and ought to be able to complete them promptly without regulatory burdens. The blanket exemption contained in the new federal brownfields law builds upon this notion, leaving federal regulators virtually powerless to become involved at sites where they believe cleanups have not adequately protected human health and the environment. This is a goal of many project proponents, who argue brownfields sites are less contaminated and should not attract federal interference. In many cases, this assumption of lesser contamination has been borne out in practice, but it is just that: an assumption. If regulators are left without effective means of ensuring from the outset that projects do not have adverse environmental consequences, the procedures of the typical VCP can hardly be considered adequate for sustainable development.

Intergenerational Equity

Many commentators have identified intergenerational equity as a prerequisite for sustainable development, referring to the Rio Declarationⁿ⁵⁴ and other instruments for sustainable development.ⁿ⁵⁵ As numerous commentators have indicated, this is difficult to define (how exactly do we preserve the environment while maintaining it for future generations?), but at some level this concept requires attention to whether activities taken in the short term will have adverse consequences for the ability of future generations to enjoy a healthy environment. Unfortunately, a shortcoming of virtually every brownfields program is the relative lack of concern for the future. State and federal programs define success more in terms of the short-term velocity of the effort--the number of brownfields sites saved and redeveloped.

n54 Rio Declaration on Environment and Development, U.N. Doc. A/CONF.151/5/Rev. 1, 31 I.L.M. 874 (1992).

n55 See Dernbach, *Now More Than Ever*, *supra* note 47, for a comprehensive discussion of this concept; *see generally* EDITH BROWN WEISS, *IN FAIRNESS TO FUTURE GENERATIONS: INTERNATIONAL LAW, COMMON PATRIMONY, AND INTERGENERATIONAL EQUITY* (1989).

If success is measured in terms of putting sites back into commerce, there is no question that the states have positive records over the past decade. And if one views the brownfields problem as an outgrowth of laws that stifled promising land developments, revamping those laws appears preferable to inertia. However, there has been less attention paid to whether communities are actually revitalized in the short and long term and whether repollution is a concern at brownfields sites. This is particularly problematic because VCPs often make assumptions about the intended use of brownfields sites; cleanup standards are often tailored to specific industrial, residential, or commercial uses of the sites. If those uses change in the future, there are few mechanisms in place to guarantee the health of local residents, and those created in existing brownfields laws have serious shortcomings. A common tactic is reliance on a state's law of property to protect the site's use for a specific purpose; this could leave some future owners free to disregard the restrictions. n56 It is imperative, given the potential for harm to future urban residents, that the states begin to design procedures to safeguard against repollution.

n56 *See* Wolf, *supra* note 14, at 530.

Public Participation

Sustainable development strategies require concerted action by all levels of national government and all affected actors. A crucial part of any strategy is involvement by affected communities in land use decisions, with appropriate outreach activities to facilitate involvement where necessary. This is deemed so important that it is reiterated throughout Agenda 21. Chapter 7 calls upon individual cities to "institutionalize a participatory approach to sustainable urban development, based on a continuous dialogue between the actors involved in urban development (the public sector, private sector and communities), especially women and indigenous people." n57 Chapter 8, referred to earlier in the context of developing integrated procedures for review of critical decisions, proposes that countries should "develop or improve mechanisms to facilitate the involvement of concerned individuals, groups and organizations in decision-making at all levels," with one activity in furtherance of this objective being, "ensuring access by the public to relevant information, facilitating the reception of public views and allowing for effective participation." n58 Chapters 23-32 of Agenda 21 expand upon this objective, calling for direct participation in decision-making activities by groups including women, youth, indigenous people and their communities, nongovernmental organizations, local authorities, workers and unions, business and industry, the scientific and technological community, and farmers. n59 Chapter 36 addresses education for sustainable development, calling for more activities to enhance public awareness of the complexity of environmental problems. n60

n57 *See* Agenda 21, *supra* note 7, P7.20(a).

n58 *See id.* PP8.3(c), 8.4(f).

n59 *See id.* PP23-32.

n60 *See id.* P36.8 (citing the "need to increase public sensitivity to environment and development problems and involvement in their solutions and foster a sense of personal environmental responsibility and greater motivation and commitment towards sustainable development").

Most of these requirements are centered on a familiar theme: citizens must be involved in major environmental decisions and receive timely and coherent information to enable them to take part in relevant decisions. n61 To accomplish this in the brownfields revitalization context, an effective public participation system would provide for input by the affected community throughout the process, from project selection to remediation and completion of the

project. n62 The factors justifying more extensive participation--which may in some cases exceed in scope what would be the case in typical construction projects (particularly if no rezoning is required)--are numerous, and only some of the major ones are summarized here. Many brownfields sites are located in neighborhoods with higher than average concentrations of persons of color and other minorities. At the same time, many VCPs, as noted above, lower the applicable cleanup standards for brownfields sites. This combination has spurred some community groups to object to projects on "environmental justice" grounds: the argument is that it is inequitable to require these neighborhoods to accept a lower level of cleanliness than is required of sites elsewhere. For this and other reasons, EPA's *Sustainable Brownfields Model Framework* states that a sustainable brownfields project "assures public involvement throughout the process to foster equity among all community groups." n63

n61 *See id.* PP8.4(f), 36.

n62 *See Eisen, Brownfields Policies for Sustainable Cities, supra* note 11, at 226.

n63 SUSTAINABLE BROWNFIELDS MODEL FRAMEWORK, *supra* note 6, at vii. This is also a recommendation of the National Environmental Justice Advisory Council. *See generally* NATIONAL ENVIRONMENTAL JUSTICE ADVISORY COUNCIL, *supra* note 6.

Another important reason for public participation in the brownfields revitalization process is that one simply cannot look at a site in isolation; instead, projects should be viewed as components of an ongoing effort to revitalize a city. Therefore, EPA's model process begins with project selection as part of a "conscious, intended collaboration between private sector organizations, public agencies and the community as a whole." n64 In this partnership process, stakeholders plan together for a community's future, with individual brownfields projects emerging as part of that plan. Residents would also have a say in important decisions relating to individual projects.

n64 SUSTAINABLE BROWNFIELDS MODEL FRAMEWORK, *supra* note 6, at 34.

Finally, contrary to conventional wisdom, public participation in brownfields revitalization activities can also be beneficial for developers. Surveys of brownfields project participants and regulators have found that developers who involve local communities have a considerable advantage over those who do not. According to the limited but growing data, there are two major features that correlate strongly with the likelihood of a brownfields project being viewed as a success by both the developer and the community: (1) involving the local community in redevelopment decisions and (2) planning that is not ad hoc but rather consistent with an overall urban vision of growth. n65

n65 *See, e.g.,* EDITH M. PEPPER, LESSONS FROM THE FIELD: UNLOCKING ECONOMIC POTENTIAL WITH AN ENVIRONMENTAL KEY 18 (1997) (observing that "most . . . participants agree that brownfield initiatives should dovetail with a community's 'vision' for growth").

At the state level, however, there is typically no requirement to involve the community. Project selection is not required to be the result of a collaboration between the developer and the community; once a developer approaches the state to begin participation in its VCP, the project may often be a "done deal." Formal opportunities for input in other decisions relating to the project tend to be limited. The public participation processes of local land use ordinances (which are hardly ideal) do not come into play at all if no rezoning is required. Once a developer has entered into a VCP, the affected public may be somewhat involved in the cleanup process, usually during a brief notice-and-comment period required by the VCP law. n66 These requirements, however, suffer from the shortcomings of the typical "notice-and-comment" public input process employed for administrative rulemaking. For example, while regulators are occasionally required to consider citizen input, there is often no requirement to incorporate public suggestions by requiring retailoring of the project. Beyond the notice-and-comment rulemaking, there are few requirements to hold public meetings or employ other devices for educating the public.

n66 See **Eisen**, *supra* note 4, at 972-77; Anne L. Kelly, *Reinvention in the Name of Environmental Justice: A View From State Government*, 14 VA. ENVTL. L.J. 769 (1995).

In practice, many developers have gone beyond the bare bones requirements of state laws regarding public participation. With over a decade of experience, pragmatic developers have learned that involving communities as partners from the outset can make for successful brownfields projects. Developers often get the public on board through the formation of ad hoc "advisory committees" or similar entities to serve as sounding boards. n67 Some of these developer-community partnerships have led to outstanding revitalization efforts that participants view as models for other cities to emulate n68; as noted above, the data accumulated to date indicates that both developers and local residents tend to view these as the most successful brownfields projects. Of course, there is usually no legal requirement to proceed in this fashion, and affected communities are left to rely on developers' business decisions as to whether or not to partner with them in making important determinations. EPA has made clear that relying on market forces alone to generate development that is both desirable to the developer and beneficial to the community is wholly inappropriate from a sustainable development perspective. n69

n67 The state of Florida now requires this. See **Eisen**, *Brownfields Policies for Sustainable Cities*, *supra* note 11, at 225-26.

n68 See, e.g., William A. McDonough, *A Dialogue on Design*, 30 U. RICH. L. REV. 1071, 1078-79 (1996) (describing redevelopment efforts in Chattanooga, Tennessee); see also John C. Dernbach et al., *U.S. Adherence to Its Agenda 21 Commitments: A Five-Year Review*, 27 ELR 10504, 10508 (Oct. 1997) (discussing the Chattanooga experience).

n69 SUSTAINABLE BROWNFIELDS MODEL FRAMEWORK, *supra* note 6, at 3.

Recommendations

A decade of experience with state and federal brownfields programs has yielded broadly perceived successes. Redevelopment activities are taking place where previously there was no hope for the future of abandoned or underused sites. However, it is difficult to conclude that this alone means that brownfields revitalization is being done sustainably. Fortunately, the elements are already in place for a transformation of existing programs to comport with Agenda 21's objectives. There is increasing recognition that projects are more likely to succeed if done as part of an overall urban redevelopment strategy and not left to the control of market forces. There is no shortage of soup-to-nuts compendiums of "best practices" to guide sustainable brownfields revitalization within this broader context. Some proposals, such as those embodied in EPA's *Sustainable Brownfields Model Framework*, would improve existing programs. None, however, are enshrined in state or federal law, and that leaves many opportunities for brownfields programs to become outstanding examples of sustainable development strategies.

A good starting point would be for the states to revamp their land use laws--including brownfields programs--to specifically require state and local policies designed to achieve sustainable development. In Australia, for example, a state statute directs regulators "to protect, restore and enhance the quality of the environment . . . , having regard to the need to maintain ecologically sustainable development." n70 This term is defined comprehensively to include both concepts familiar in American law (for example, the "polluter-pays" principle), and others viewed as important but not yet enshrined anywhere in American law (for example, pricing based on life-cycle analysis and achieving intergenerational equity). n71

n70 Protection of the Environment Administration Act, § 6(1)(a)(1991).

n71 See *id.* § 6(2).

Beyond this basic mandate, a number of specific changes to state programs could be made. States should modify their VCPs to require integrated procedures; in particular, those states that allow developers to operate on their own

should provide for state oversight throughout the process. If they were recalcitrant to do this, Congress could amend CERCLA and provide EPA authority to approve or disprove of states' programs; the latter would receive no CERCLA liability protection for sites addressed in their programs. n72 While the trend is away from federal supervision and toward legislation reducing the spectre of federal interference in brownfields policy, EPA has partly dispelled the states' fears by acting as a partner with them in brownfields revitalization. Thus, it is more difficult for the states to argue against limited federal involvement in regulatory matters, particularly given that they would receive financial assistance and other benefits if pending legislation became law.

n72 See **Eisen**, *supra* note 4, at 1029-30.

The states should also act to bolster the public participation provisions of VCPs. Then--and only then--could it be said that Agenda 21's requirements for full and active citizen participation throughout the revitalization process have been met. Finally, the states should work to prevent repollution of brownfields sites by modifying their programs to add provisions designed to guarantee long-term protection of sites where remediation has taken place. n73

n73 Professor Wolf's "PLUS" scheme, for example, would require states to create the following:

(1) "devastation easements," (2) CIS-enhanced brownfields inventories; (3) a "Megan's Law" for brownfields, even formerly contaminated, reused sites; (4) easements or set-asides in fee to create buffer zones; (5) pre-construction bonds to guarantee remediation completion and to fund perpetual maintenance; and (6) environmental awareness and safety programs.

See Wolf, *supra* note 14, at 533-39.