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Fighting Uncertainty: Municipal Partnerships with Redevelopment Agencies Can Mitigate Uncertainty to Encourage Brownfield Redevelopment

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COMMENT

FIGHTING UNCERTAINTY: MUNICIPAL PARTNERSHIPS WITH REDEVELOPMENT AGENCIES CAN MITIGATE UNCERTAINTY TO ENCOURAGE BROWNFIELD REDEVELOPMENT

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I. INTRODUCTION

The 1977 documentary *POWERS OF TEN*¹ begins with an aerial image of a man reclining on a blanket. The camera then slowly zooms out, increasing the perspective by powers of ten, until it reaches the size of the observable universe. Zooming back in, past the picnic, and into negative powers of ten, the viewer arrives at a carbon nucleus inside the man's hand.

Like *POWERS OF TEN*, brownfield remediation is a combination of the large and small. Remediation involves working on the microscopic scale to achieve large-scale results; while pollutants exist on the molecular scale, the harm they cause and the benefits of their cleanup occur on a much larger scale. From the smallest scale to the largest, cleanup requires removing or neutralizing pollutants that affect the local environment. Zooming out, brownfields are the open gaps in urban areas.

Brownfields offer a means of curbing urban sprawl and development of greenfields, undeveloped land outside cities.² Building

¹ *POWERS OF TEN* (International Business Machines 1968); see also John Seabrook, *GAME MASTER: Will Wright changed the concept of video games with the Sims. Can he do it again with Spore?*, *THE NEW YORKER*, Nov. 6, 2006 (discussing the short film *POWERS OF TEN*); see also *POWERS OF TEN*, <http://www.powersof10.com/> (last visited June 24, 2007); *POWERS OF TEN*, http://en.wikipedia.org/wiki/Powers_of_ten (last visited June 24, 2007).

² Brownfields Center Glossary, <http://www.brownfieldscenter.org/big/glossary.shtml> (last visited June 24, 2007) ("Greenfield: A property that has not been previously developed."); see also Sustainable Management Approaches and Revitalization Tools [SMARTe] Glossary, <http://www.smarte.org/smarte/resource/sn-glossary.xml?jsessionid=8jqqqjcup9ec> (last visited June 24, 2007) (A greenfield is "[a] property that has not previously been used for commercial or

on brownfields can revitalize cities and curb suburban growth by increasing the tax base, developing unused or blighted areas, and eliminating pollution. Globally, infill development—building inside cities—is a means of addressing two significant challenges that cities are not well-equipped to handle: the global shift in manufacturing away from the United States³ and global warming.⁴

Brownfields are not dispersed evenly. Former cities of industry, now in decline, have greater numbers of brownfields and disproportionately bear the burden of the flight of manufacturing from the United States.⁵ Global climate change remains a problem far surpassing the scales of city government. Infill development can increase population density and is one way cities can curb suburban growth. This can reduce commutes, decrease traffic congestion, and contribute to carbon reduction.

This Comment proposes that municipalities lead the development of difficult brownfield projects, in partnerships with redevelopment agencies, in order to reduce uncertainty regarding the risks of such projects. The primary risks are the risk of liability, having to pay to clean up the property, and the risk of investment—not making a profit. Difficult brownfield projects are those that are unattractive investments and deter investors.⁶ Liability risk is the potential that another party will try to recover cleanup costs, that there is undiscovered contamination,

industrial activities and is presumed free of contamination.").

³ See PETER DICKEN, *GLOBAL SHIFT: RESHAPING THE GLOBAL ECONOMIC MAP IN THE 21ST CENTURY* 4, 9 (Sage Publications Ltd. 4th ed. 2003) (manufacturing and finances have each experienced "major global shifts in recent decades," with manufacturing in the developing world and a "knowledge economy" in the developed world).

⁴ See ROBERT V. PERCIVAL ET AL., *ENVIRONMENTAL REGULATION: LAW, SCIENCE, AND POLICY* 511 (Aspen Publishers 5th ed. 2006) (one of the greatest contributors to United States greenhouse gas emissions and diminished air quality is mobile sources—cars. Changing the way individuals use cars is politically unpopular and physically difficult. Infill development can curb global warming by putting housing and work closer together to change individual driving habits and decrease commutes where other policies are not feasible.).

⁵ ALAN GORDON, *FYI: CALIFORNIA'S BROWNFIELDS: NEGLECTED, ABANDONED AND IGNORED*, PUB. NO. 98-6 (Senate Office of Research 1998), available at http://www.sen.ca.gov/sor/reports/REPORTS_BY_SUBJ/Enviro_Quality/BROWNFIELDS.HTM; see also CHARLES BARTSCH ET AL., *STRATEGIES FOR SUCCESSFUL INFILL DEVELOPMENT* (Northeast-Midwest Institute 1999), available at <http://www.nemw.org/infillbook.htm>.

⁶ Michael Greenberg, Karen Lowrie, Laura Solitare & Latoya Duncan, *Brownfields, Toads, and the Struggle for Neighborhood Redevelopment: A Case Study of the State of New Jersey*, 35 *URB. AFF. REV.* 717, 718-19 (2000) (TOADS are temporarily obsolete abandoned derelict sites, which greatly complicate brownfield redevelopment. The article also divides brownfields into three classes (superior to TOADS) based on desirability of location (in infrastructure or real estate terms, such as between two roads or on the ocean) and level of contamination. Tier one properties are in a good location and have minimal contamination. "Second- and third-tier sites are less desirable than this first tier because their location attributes are less obvious, and pollution costs are higher.").

and that the project will incur liability for damages to other property owners for off-site contamination (i.e., migration of pollution to adjoining properties). Investment risk is the risk that the developers' investment-backed expectations⁷ that the project will be feasible and profitable are inaccurate. Difficult brownfield projects should be developed in partnership with redevelopment agencies in order to mitigate investment and liability risk. However, municipalities should not lead cleanup and development if their involvement does not address citizen involvement and recognize any disparate economic or health impacts of the development.

Section II of this Comment surveys the brownfield problem and provides background. It notes the conflicting views of environmentalists and developers toward brownfield remediation and outlines the federal and California laws that govern cleanup of contaminated properties.

Section III of this Comment examines the effect of uncertainty on liability risk and investment risk, proposing that brownfield developments be municipally led in partnership with redevelopment agencies. It also notes that municipal control of land use, eminent domain, and tax incentives make municipal public-sector leadership of brownfield projects effective. The section notes national concern over property rights, suggesting that condemnation of contaminated property provides an additional public-use justification for redevelopment. The section argues that planning and environmental justice concerns are best addressed at the municipal level early in the development process. It notes that notice and open-government laws, combined with the political pressure of electoral politics, are an existing if imperfect means of addressing planning and environmental justice concerns. The section posits that municipalities should lead brownfield projects only when the affected communities demand that they do so and the gains from redevelopment are great.

Section IV concludes that remediation is possible in the existing legal and policy framework, but advisable only when the gains are great and environmental justice concerns are addressed by the planning

⁷ See *Penn Cent. Transp. Co. v. New York*, 438 U.S. 104, 124 (1978) (citing *Goldblatt v. Hempstead*, 369 U.S. 590, 594 (1962)) ("The economic impact of the regulation . . . and, particularly, the extent to which the regulation has interfered with distinct investment-backed expectations are, of course, relevant considerations."); see also THOMAS J. MICELI, *THE ECONOMIC APPROACH TO LAW* 234 (Stanford University Press 2003) ("From an economic perspective, expectations are important because they determine market values. For example, a piece of vacant land may sell for a very high price if the buyer expects to be able to develop it in the future. Similarly, the threat of a regulation preventing future development will depress the value of the property.")

process and final development.

II. BACKGROUND

A. THE PROBLEM

Brownfields are unsightly blemishes as well as sources of hope. The definition of “brownfields” determines which properties qualify for legal treatment as brownfields.⁸ 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.”⁹ The term is now synonymous with any blighted properties that have traditionally scared away private investment. Brownfields are unrealized development opportunities left fallow for lack of investment.¹⁰ Action to clean up brownfields is desirable, for without it the benefits of brownfield development will be lost.

The benefits of brownfield development are numerous. Human health and the environment can be protected by cleaning up existing contamination and guarding against future contamination with education and agency oversight of properties.¹¹ Cleaning properties that are unmarketable or underused because of fears of liability for contamination increases property values and tax revenue.¹² Building on unused or underused contaminated sites within existing cities stimulates other economic development and uses existing infrastructure.¹³ Building

⁸ Sandra Alker, Victoria Joy, Peter Roberts, & Nathan Smith, *The Definition of Brownfield*, 43 J. ENVTL. PLAN. & MGMT. 49-50 (2000) (discussing the need for a more robust definition of the term “brownfield” from a multidisciplinary perspective, and examining the issues involved in constructing an agreed and accepted definition and its importance with regard government policy).

⁹ Gabriel A. Espinosa, *Building On Brownfields: A Catalyst For Neighborhood Revitalization*, 11 VILL. ENVTL. L.J. 1, 8, n.25 (2000) (citing Office of Solid Waste and Emergency Response, Environmental Protection Agency, Brownfields National Partnership Action Agenda (May 1997) (defining brownfields and noting how federal agencies will work together to create and implement brownfields redevelopment plans)).

¹⁰ Julia Vitullo-Martin, *Project Vision*, WALL STREET J., Aug. 18, 2006, at A14, available at http://www.manhattan-institute.org/html/_wsj-project_vision.htm.

¹¹ CAROL TUCKER, BROWNFIELDS 101: FEDERAL AND STATE ROLE IN BROWNFIELD REDEVELOPMENT 2 (U.S. EPA New England 2006) (materials accompanying Brownfields 2006 presentation), available at http://www.brownfields2006.org/proxy/document.aspx?source=database&TableName=v_SessionAttachments&IdField=SessionAttachmentID&ID=1684&ContentField=Document&ContentTypeField=DocumentContent&DocumentTitleField=DocumentTitleNoPath.

¹² *Id.*

¹³ *Id.*; see also Timothy Moss, *Utilities, Land-use Change and Urban Development:*

downtown instead of in the suburbs preserves green space.¹⁴ Programmatic solutions encouraging smart growth and sustainable development can make brownfield reuse sustainable.¹⁵ Replacing shuttered, blighted, and unsafe properties helps create or maintain a sense of place.¹⁶ The overall quality of life can be improved through combinations of these benefits.¹⁷

Spatially, brownfields are “geographically concentrated, usually in older urban centers,” where they represent the industrial and commercial histories of the areas they blight and an “untold loss in public and private revenues.”¹⁸ Brownfields are also representative of changes in the national and international political and economic landscape. These changes result from (1) the domestic relocation of factories, and the movement of production abroad;¹⁹ (2) the trend toward higher-end service jobs in the U.S.; (3) the introduction of new industrial technologies; (4) a leveling or decline in demand for certain goods and services; (5) the aging, retirement or relocation of workers; (6) competitive pressures on enterprises to cut costs, including the costs of running large plants and other facilities; and (7) public demand for more efficiency in government operations and curtailment of public spending—including spending on maintaining public properties—to match constricted public revenues.²⁰ Brownfield redevelopment is one way to address these changes, yet revitalization of brownfields has stalled.²¹

B. THE DIFFERING APPROACHES OF ENVIRONMENTALISTS AND DEVELOPERS

Efforts to promote the revitalization of brownfield properties have met with controversy in some quarters, fueled by deep-seated conflicts

Brownfield sites as "Cold Spots" of Infrastructure Networks in Berlin, 35 ENV'T & PLANG. 511, 526 (2003) (spatial distribution of the networks of the Berlin utilities has a greater effect on reuse than the level of privatization).

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

¹⁷ *Id.*

¹⁷ *Id.*

¹⁸ GORDON, *supra* note 5.

¹⁹ DONALD MOULDS, STATE GOVERNMENT AND THE GLOBAL ECONOMY 1 (Senate Office of Research 2004), available at http://www.sen.ca.gov/sor/REPORTS/RECENT_REPORTS/COMM_STUDIES/TRADE.PDF.

²⁰ GORDON, *supra* note 5.

²¹ PERCIVAL ET AL., *supra* note 4, at 511.

between environmentalists' and developers' approaches to redevelopment.²² Environmentalists hope to ensure that property owners are assessed the full costs of remedying environmental damages caused by activities on their properties.²³ Developers want sites cleaned reasonably quickly, legally, and at the lowest possible cost.²⁴ State programs attempt to balance these interests, with varied results.

One way states deal with contaminated sites is through voluntary cleanup programs.²⁵ These programs encourage the property owners and developers to work cooperatively with the state outside of the state's enforcement-driven cleanup program, thereby avoiding some of the costs and delays associated with cleaning properties through enforcement and developing them as a separate operation.²⁶ Cleanup standards are sometimes identical to those the states enforce at other hazardous-waste sites, but varying the quality of cleanup is a contentious policy.²⁷ Most states provide incentives for participating in the program, most commonly some form of liability release.²⁸ Other incentives commonly offered by states include a streamlined process for development or cleanup, favorable financing terms or tax breaks, and technical assistance.²⁹ Campus Bay is an example of one of these voluntary cleanups.

²² GORDON, *supra* note 5.

²³ *Id.*

²⁴ *Id.*

²⁵ MARK REISCH, *THE BROWNFIELDS PROGRAM AUTHORIZATION: CLEANUP OF CONTAMINATED SITES* RL30972, 3 (Congressional Research Service 2002); *see also* STATE BROWNFIELDS AND VOLUNTARY RESPONSE PROGRAMS: AN UPDATE FROM THE STATES, EPA-560-R-05-001 149-150 (U.S. Environmental Protection Agency 2005); NAT'L BROWNFIELD ASS'N, *WHAT WORKS: AN ANALYSIS OF STATE BROWNFIELD 1* (2005) ("All states have since moved to some extent to create" cleanup programs where "the state and the voluntary party agree to the" cleanup approach.), *available at* http://www.brownfieldassociation.org/pdf_files/NBA_Program_Analysis.pdf; GEN. ACCOUNTABILITY OFFICE, GAO-05-94 *BROWNFIELD REDEVELOPMENT: STAKEHOLDERS REPORT THAT EPA'S PROGRAM HELPS TO REDEVELOP SITES, BUT ADDITIONAL MEASURES COULD COMPLEMENT AGENCY EFFORTS* 10 (2004) ("All 50 states now have voluntary cleanup programs, although these programs vary considerably in scope and breadth.").

²⁶ REISCH, *supra* note 25, at 4.

²⁷ *Id.* at 3 (citing AN ANALYSIS OF STATE SUPERFUND PROGRAMS: 50-STATE STUDY 40 (Environmental Law Institute 1998)); *see also* Joel B. Eisen, *Brownfields of Dreams?: Challenges and Limits of Voluntary Cleanup Programs and Incentives*, 1996 U. ILL. L. REV. 883, 936 (1996) ("Although some state programs do not change existing cleanup standards, many attempt to implement modified, risk-based standards as an incentive to developers." (citations omitted)).

²⁸ REISCH, *supra* note 25, at 6.

²⁹ Charles Bartsch, *Financing Brownfield Cleanup and Redevelopment*, *GOV'T FIN. REV.* Feb. 2002, at 26-31.

C. CASE STUDY: CAMPUS BAY

Campus Bay is in the City of Richmond, California.³⁰ Richmond has a history of industrial production.³¹ In 1994, the United States Environmental Protection Agency (“U.S. EPA”) selected Richmond as a Brownfields Pilot, one of sixty nationwide.³² The Brownfields Pilot funded assessment for nine hundred acres of North Richmond Shoreline, bordering the San Francisco Bay, that contain a variety of properties: aging heavy-industrial, idle, vacant, low-income residential, and waste-disposal facilities.³³ Grants pursuant to the assessment conducted according to the Pilot were awarded to Richmond Redevelopment agencies.³⁴ At least thirty properties (ninety percent of the City’s developable area) are contaminated with volatile organic compounds, polychlorinated biphenyls, and metals.³⁵ Campus Bay is one such property.³⁶

Campus Bay is property with a history like many other former manufacturing sites. For seventy years a chemical plant manufactured sulfuric acid and other unknown chemicals on the site.³⁷ Business boomed, and the then-owner, Stauffer Chemical, bought its neighbors.³⁸

The property known as Campus Bay is a portion of an eighty-five-acre parcel that shares a border with the Richmond Field Station, which was formerly part of the same parcel.³⁹ The Richmond Field Station is owned by the University of California, Berkeley (“UC Berkeley”).⁴⁰ UC Berkeley is undertaking its own wetlands restoration and cleanup on the

³⁰ Campus Bay of Richmond, Cal., <http://www.campusbay.info/> (last visited July 29, 2007).

³¹ Richmond, CA Official Website—History, <http://www.ci.richmond.ca.us/index.asp?NID=112#History> (last visited July 29, 2007).

³² Brownfields Assessment Pilot Fact Sheet, <http://www.epa.gov/swerosps/bf/html-doc/richm.htm> (last visited Nov. 26, 2006).

³³ *Id.*

³⁴ U.S. Env’tl. Prot. Agency Brownfields Cleanup and Redevelopment, Assessment Demonstration Pilot Fact Sheet, <http://www.epa.gov/swerosps/bf/html-doc/richm.htm> (last visited June 30, 2007).

³⁵ *Id.*

³⁶ FACT SHEET JANUARY 2005 ZENECA/FORMER STAUFFER CHEMICAL COMPANY SITE, RICHMOND, CA (Department of Toxic Substances Control 2005) (describing the parcel), *available at* http://www.envirostor.dtsc.ca.gov/public/view_document.asp?docurl=http://envirostordev.ecointeractive.com/regulators/deliverable_documents/1517835319/Zeneca%5FFS%5FHistory%2Epdf.

³⁷ Zeneca History, <http://www.soula.org/zeneca/zenecasitehistory.doc> (last visited Nov. 26, 2006).

³⁸ Telephone interview with Sherry Padgett, Accountant for Kray Cabling (a business downwind of the cleanup site) (May 18-19, 2007) [hereinafter Padgett Interview].

³⁹ *Id.*

⁴⁰ *Id.*

Field Station site.⁴¹ The parcel that includes Campus Bay is referred to as the Zeneca, AstraZeneca, and Stauffer property, after the successor in interest that subsequently merged with Astra and became AstraZeneca. The use of Campus Bay in this Comment refers to the Zeneca property, not just the proposed development on a portion of the property.

The U.S. EPA opened a Superfund⁴² discovery and preliminary assessment of the Zeneca property in 1979.⁴³ Shortly thereafter, the property was sold in bankruptcy proceedings as the then-owner Stauffer Chemical was embroiled in an accounting scandal that ended in the liquidation of its assets.⁴⁴ Bayer Crop Science bought Stauffer's intellectual property and Imperial Chemicals Industries Americas, which later changed its name to Zeneca, bought Stauffer's physical plant — making both Bayer and AstraZeneca potentially liable for cleaning up the property under federal and state toxic-waste laws.⁴⁵ Stauffer lobbied to keep the Zeneca property from being listed as a toxic-waste site in order to keep the property from depreciating in value because of the risk of liability for any purchaser of listed toxic property.⁴⁶ After a U.S. EPA inspection in 1994, oversight of the property was moved from the federal agency to the California Environmental Protection Agency (“Cal/EPA”).⁴⁷ Through mergers and restructuring, Zeneca operated the plant until closing it in 1997.⁴⁸ In 1999, Zeneca merged with Astra and became AstraZeneca.⁴⁹ The merged company set aside as much as one hundred million dollars for cleaning up the Zeneca property that would come to be known as Campus Bay.⁵⁰

AstraZeneca approved a twenty-million-dollar cleanup proposal under which waste would be buried on-site in a thirty-acre, eight-foot-

⁴¹ UC Berkeley Richmond Field Station, <http://rfs.berkeley.edu/about.html> (last visited Nov. 26, 2006).

⁴² The Superfund enacted by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, 42 U.S.C. §§ 9601-9675) is discussed *infra* at Part II.D.i.

⁴³ Zeneca History, *supra* note 37.

⁴⁴ Padgett Interview, *supra* note 38.

⁴⁵ *Id.*; see also AstraZeneca Corporate Evolution, <http://www.cefotan-us.com/content/aboutAZ/ourCompany/ourHistory/astrazeneca-our-history-corporate-evolution.asp> (last visited June 30, 2007).

⁴⁶ Padgett Interview, *supra* note 38.

⁴⁷ Zeneca History, *supra* note 37.

⁴⁸ Kelly St. John, *High-rises planned on Richmond toxic site; Developer says fans will disperse fumes*, THE S.F. CHRONICLE, Aug. 31, 2004, at A1.

⁴⁹ AstraZeneca History, <http://www.astrazeneca.com/article/11163.aspx> (last visited July 29, 2007).

⁵⁰ Zeneca History, *supra* note 37; see also Padgett Interview, *supra* note 38.

high mound.⁵¹ Toxics from the original chemical plant on the neighboring UC Berkeley Field station would be hauled to the Campus Bay site and buried there.⁵² The City of Richmond issued a demolition permit for the plant and neighboring buildings, with no conditions for monitoring or follow-up (as is their usual practice).⁵³ In 2002, before the self-monitored cleanup started, two of the four lots (comprising twenty-seven acres) were sold to Cherokee-Simeon Ventures, LLC ("Cherokee"), a company specializing in brownfield remediation and redevelopment.⁵⁴ Those familiar with the cleanup believe AstraZeneca remains responsible for the costs of the cleanup through an agreement with Cherokee.⁵⁵

Cherokee renamed the property "Campus Bay" and partnered with a local developer, Simeon Properties.⁵⁶ The Richmond City Council subsequently adopted a negative declaration (pursuant to the California Environmental Quality Act *infra* notes 282 and 283) for the lots to be converted into a biotech park in 2002.⁵⁷ The negative declaration status meant the parties involved did not complete an Environmental Impact Report⁵⁸ and were exempted from federal and state decisionmaking and disclosure statutes.⁵⁹ Confrontations ensued once the cleanup started.⁶⁰

⁵¹ Zeneca History, *supra* note 37.

⁵² *Id.*

⁵³ Zeneca History, *supra* note 37 (the City of Richmond Building Regulations Department permitted the demolition of the facility, including all chemical storage facilities, laboratories, storage slabs, office buildings, underground storage and manufacturing buildings); *see* Padgett Interview, *supra* note 38.

⁵⁴ Campus Bay of Richmond Background, <http://campusbay.info/who.html> (last visited June 30, 2007) ("Cherokee is the largest firm in the world specializing in the acquisition, remediation, and sustainable redevelopment of," brownfields. Simeon is a San Francisco-based developer.); *see generally* Cherokee Investment Partners Introduction, <http://www.cherokeefund.com/intro.html> (last visited June 30, 2007) ("Cherokee specializes in the acquisition, remediation and sustainable redevelopment of brownfields.").

⁵⁵ *See* Padgett Interview, *supra* note 38; Zeneca History, *supra* note 37.

⁵⁶ Zeneca History, *supra* note 37.

⁵⁷ *Id.*

⁵⁸ Environmental Impact Report, http://en.wikipedia.org/wiki/Environmental_impact_report (last visited Nov. 26, 2006) (a document required under CEQA describing a project location, its impacts on the environment on and adjacent to the property, and proposed mitigation measures. It is similar to an Environmental Impact Statement (EIS) as required by NEPA); *see also* Mendocino County Permit Glossary, <http://www.co.mendocino.ca.us/planning/PermitPlace/PermitPlace72.htm> (last visited June 30, 2007) ("Environmental impact report' or EIR means a detailed statement prepared in accordance with the California Environmental Quality Act describing and analyzing the significant environmental effects of a project and discussing ways to mitigate or avoid those effects. The term EIR may mean either the draft or final EIR, depending on the context.").

⁵⁹ Zeneca History, *supra* note 37.

⁶⁰ Richard Brenneman, *Tempers Flare Over Cleanup Project*, BERKELEY DAILY PLANET, Oct. 29, 2004.

The contested issues are the quality of cleanup, the execution of the cleanup, and the proposed uses for the site.⁶¹ These concerns are at the heart of the federal laws imposing liability on owners of contaminated property, which are discussed in the following sections.

The Zeneca and Field Station properties are highly contaminated, and the cleanup exposed area workers and residents to toxins.⁶² In California, two state agencies oversee private cleanups like that of the Zeneca property, the Regional Water Quality Control Board ("RWQCB") and the Department of Toxics and Substances Control ("DTSC").⁶³ A wide-reaching group opposed to the development coalesced around a demand that cleanup oversight be moved from the RWQCB to the DTSC because the RWQCB lacked expertise in toxics, as exemplified by the absence of a toxicologist on its payroll.⁶⁴ California State Assembly hearings resulted in the transfer cleanup oversight to the DTSC.⁶⁵ Development plans are on hold pending the outcome of the cleanup.⁶⁶ Recently, the DTSC notified UC Berkeley and AstraZeneca that the original cleanup violated state law and gave them fifteen days to begin creating a schedule for removing the toxic waste from the site.⁶⁷ The Campus Bay cleanup is being performed under California's voluntary cleanup program, and a range of federal and state laws apply to cleanups like Campus Bay.

⁶¹ See *id.* ("[T]he immediate concern of neighbors and environmental activists was the potential escape of toxic materials during the current excavation of polluted soil . . . other worries had a longer focus."); Richard Brenneman, *Meetings Target Concerns at Toxic Richmond Sites*, BERKELEY DAILY PLANET, June 21, 2005 (Community Advisory Group members "have expressed strong reservations about plans to develop 1,331 residential units atop the buried toxins at Campus Bay while Duran has been a strong proponent of the project.").

⁶² Richard Brenneman, *UC Illegally Buried "Thousands Of Truckloads" of Toxic Soil In Richmond, State Says*, BERKELEY DAILY PLANET (July 3, 2007), available at <http://www.berkeleydailyplanet.com/article.cfm?archiveDate=07-03-07&storyID=27431>.

⁶³ Cal. Env'tl. Prot. Agency Brownfield Memorandum of Agreement, <http://www.calepa.ca.gov/Brownfields/MOA/> (last visited June 30, 2007).

⁶⁴ Padgett Interview, *supra* note 38; see also Richard Brenneman, *Campus Bay-Inspired Bills Clear Assembly Committee*, BERKELEY DAILY PLANET, Apr. 29 2005, available at <http://www.berkeleydailyplanet.com/article.cfm?archiveDate=04-29-05&storyID=21276>.

⁶⁵ Richard Brenneman, *Saturday Assembly Hearing Targets Campus Bay Cleanup*, BERKELEY DAILY PLANET, Nov. 5 2004, available at <http://www.berkeleydailyplanet.com/article.cfm?archiveDate=11-05-04&storyID=20023>; see also Richard Brenneman, *Critics Win New Victory in Campus Bay Cleanup*, BERKELEY DAILY PLANET, Dec. 21, 2004, available at <http://www.berkeleydailyplanet.com/article.cfm?archiveDate=12-21-04&storyID=20336>.

⁶⁶ Richard Brenneman, *UC Illegally Buried "Thousands Of Truckloads" of Toxic Soil In Richmond, State Says*, *supra* note 62.

⁶⁷ *Id.*

D. FEDERAL BROWNFIELDS PROGRAMS

i. CERCLA/Superfund

In response to the Love Canal disaster in 1978, which involved “a toxic soup bubbling up into the basements of homes in the community of Love Canal,”⁶⁸ Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (“CERCLA”), commonly called the “Superfund,” after its cleanup fund.⁶⁹ CERCLA’s purpose was twofold: (1) to facilitate prompt cleanup of hazardous waste sites, and (2) to ensure that cleanup costs are borne by those who are in some way responsible.⁷⁰ This became known as the *polluter-pays principle*.

Congress’s intent in passing CERCLA was to protect public health by preventing environmental contamination, cleaning contaminated properties, and deterring future contamination.⁷¹ To these ends, CERCLA created a tax on petroleum and chemical industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances “that may endanger public health or the environment.”⁷² U.S. EPA administers the National Priorities List, which lists and prioritizes Superfund sites.⁷³

⁶⁸ PERCIVAL ET AL., *supra* note 4, at 311; *see generally id.* at 366 (in 1979 the Love Canal and other environmental disasters crystallized a festering problem by provoking an emotional response from the public).

⁶⁹ Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C.A. §§ 9601-9675 (Westlaw 2007).

⁷⁰ *OHM Remediation Servs. v. Evans Cooperage Co.*, 116 F.3d 1574, 1578 (5th Cir. 1997).

⁷¹ *See* MARK REISCH & DAVID MICHAEL BEARDEN, SUPERFUND FACT BOOK 97-312 ENR (Congressional Research Service 1997) (realizing inactive hazardous waste sites were, nationally, very risky to public health and the environment, that state and local governments could not address the problem, and that existing federal laws were inadequate; authorizing swift federal response to hazardous substance emergencies and cleanups was the purpose of CERCLA), *available at* <http://www.ncseonline.org/NLE/CRSreports/Waste/waste-1print.cfm>.

⁷² U.S. ENVTL. PROT. AGENCY, CERCLA OVERVIEW (2006), *available at* <http://www.epa.gov/superfund/action/law/cercla.htm>; *see also* Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C.A. § 9606 (Westlaw 2007); Amy Pilat McMorrow, *CERCLA Liability Redefined: An Analysis Of The Small Business Liability Relief And Brownfields Revitalization Act And Its Impact On State Voluntary Cleanup Programs*, 20 GA. ST. U.L. REV. 1087, 1091-92 n.28 (2004) (citing Philip T. Cummings, *NEPA to CERCLA: Completing the Circle*, 7 ENVTL. F. 6, 11 (1990)) (the statute also had a forward-looking deterrent effect. Philip Cummings, chief counsel of the Senate Environment Committee at the time of CERCLA’s drafting, stated that CERCLA “is not primarily an abandoned dump cleanup program.... The main purpose of CERCLA is to make spills or dumping of hazardous substances less likely through liability, enlisting business and commercial instincts for the bottom line in place of traditional regulation.”).

⁷³ U.S. ENVTL. PROT. AGENCY, NATIONAL PRIORITIES LIST (2006), *available at* <http://www.epa.gov/superfund/sites/npl/npl.htm>.

CERCLA makes specified parties potentially liable for the costs of cleaning a contaminated site.⁷⁴ These potentially responsible parties (“PRPs”) may include the current owners of a site, certain prior owners of the site, and generators and transporters of hazardous waste.⁷⁵ Courts have interpreted CERCLA to impose joint and several liability on PRPs for any indivisible harm caused by hazardous substances on the site.⁷⁶ Joint and several liability allows the government to recover the costs of the cleanup from a PRP regardless of the PRP’s equitable share of liability.⁷⁷ In 2001, CERCLA was amended to limit liability for brownfield cleanups.⁷⁸

ii. *The Small Business Liability Relief and Brownfields Revitalization Act (“SBBRA”)*

In the waning hours of its 2001 session, Congress enacted the Small Business Liability Relief and Brownfields Revitalization Act (“SBBRA”).⁷⁹ Combining legislation passed by the House in May 2001 to provide small business Superfund liability relief (H.R. 1831), and the Senate in April 2001 to encourage redevelopment of contaminated properties (S. 350), the statute was designed to accomplish two principal objectives: (1) promotion of brownfield redevelopment through federal funding, liability relief, and assistance in development of state voluntary cleanup programs; and (2) relief from liability at Superfund National Priority List sites for certain *de micromis* generators and transporters and generators of municipal solid waste.⁸⁰

The SBBRA exempts contiguous property owners and prospective purchasers from CERCLA liability and clarifies the “innocent landowner” defense.⁸¹ The SBBRA also exempts “bona fide prospective

⁷⁴ CERCLA, 42 U.S.C.A. §§ 9601-9675 (Westlaw 2007); Howard Chang & Hilary Sigman, *The Effect of Joint and Several Liability Under Superfund on Brownfields* 1 (Nat’l Bureau Econ. Research, Working Paper No. 11667, 2006).

⁷⁵ CERCLA, 42 U.S.C.A. §§ 9601-9675 (Westlaw 2007); Chang & Sigman, *supra* note 74, at 1.

⁷⁶ Chang & Sigman, *supra* note 74, at 1.

⁷⁷ *Id.*

⁷⁸ Small Business Liability Relief and Brownfields Revitalization Act, Pub. L. No. 107-118, 115 Stat. 2356 (2002) (codified as amended in scattered sections of 42 U.S.C.).

⁷⁹ KARL BOURDEAU, SUMMARY OF THE SMALL BUSINESS LIABILITY RELIEF AND BROWNFIELDS REVITALIZATION ACT OF 2001 1 (Beveridge & Diamond, P.C. 2002).

⁸⁰ *Id.* (*de micromis* generators are those generating very little waste).

⁸¹ CHARLES BARTSCH, GETTING STARTED WITH BROWNFIELDS – KEY ISSUES AND OPPORTUNITIES: WHAT COMMUNITIES NEED TO KNOW 7 (Northeast-Midwest Institute 2006) (making it easier to use a “checklist” to determine if the law applies).

purchasers” (“BFPPs”) from CERCLA “owner” liability, as long as the purchaser “does not impede the performance of a response action or natural resource restoration” at the site.⁸² Purchasers are exempt from the liability if they meet certain specified conditions.⁸³ The definition of BFPP requires the purchaser to show that (1) all disposal of hazardous substances at the site took place before the purchaser acquired the property, (2) the purchaser undertook “all appropriate inquiries” to discover any contamination, (3) the purchaser exercised “appropriate care” with respect to hazardous substances and prevented any future releases, and (4) the purchaser provided “full cooperation” with the government or other persons conducting “response actions.”⁸⁴ Many states, such as California, have laws addressing liability for contaminated property.

E. CALIFORNIA BROWNFIELD LAWS

Federal law sets the minimum requirements, the floor, for contaminated property liability. States can pass laws enforcing and furthering the purpose of their federal counterparts, though federal courts have original jurisdiction over CERCLA claims.⁸⁵ California laws furthering the purpose of their federal counterparts in this field include the California Hazardous Substances Account Act, California’s CERCLA equivalent.⁸⁶ Three California acts address brownfield cleanups: the Polanco Redevelopment Act; the California Land Environmental Restoration and Reuse Act; and the California Land Reuse and Revitalization Act of 2004. None of these provides liability protection to the extent of the SBBRA floor.

i. *Polanco Redevelopment Act*

Since its adoption, The Polanco Redevelopment Act (“Polanco”) has been one of the most effective in the California brownfield toolbox.⁸⁷ Polanco gives redevelopment agencies vast power to expedite the

⁸² Chang & Sigman, *supra* note 74, at 1 (citing 42 U.S.C.A. § 9607(r) (West Supp. 2005)).

⁸³ Small Business Liability Relief and Brownfields Revitalization Act, Pub. L. No. 107-118, 115 Stat. 2356 (2002) (codified as amended in scattered section of 42 U.S.C.A. §§ 9601-9675 (Westlaw 2007)); *see also* Chang & Sigman, *supra* note 74, at 3.

⁸⁴ Chang & Sigman, *supra*, note 74, at 3 (citing U.S.C.A. § 9601(40) (West Supp. 2005)).

⁸⁵ CERCLA, 42 U.S.C.A. § 9614 (Westlaw 2007).

⁸⁶ *See* CAL. HEALTH & SAFETY CODE §§ 25200-25205 (Westlaw 2006).

⁸⁷ CAL. HEALTH & SAFETY CODE § 33459 (Westlaw 2006); ROBERT DOTY, STUART BLOCK, PRESTON BROOKS, & PERRY HUGHES, *REDEVELOPING BROWNFIELDS USING THE POLANCO REDEVELOPMENT ACT: A HOW TO GUIDE 1* (Cox Castle & Nicholson 2006).

cleanup process.⁸⁸ It consists of five essential features that enable redevelopment agencies to (1) obtain environmental data about brownfield sites; (2) expedite the cleanup process; (3) focus and expedite the regulatory process; (4) trigger statutory immunities that reduce risk for the agency, redevelopers, and their financing sources; and (5) apply, where needed, “fee shifting” to recover cleanup costs, interest expenses, and attorneys’ fees from “responsible parties.”⁸⁹

Once a “duly prepared”⁹⁰ cleanup plan is approved and completed by the appropriate regulatory agency,⁹¹ the “Polanco Immunities” apply, and the redevelopment agency is not liable (with respect to that release only) under five specified California environmental statutes or “any other state or local law providing liability for remedial or removal actions for releases of hazardous substances.”⁹² The five specified enforcement

⁸⁸ DOTY ET AL., *supra* note 87, at 4.

⁸⁹ *Redevelopment Agency v. Salvation Army*, 127 Cal. Rptr. 2d 30, 39 (Cal. Ct. App. 2002) (the elements of a claim for recovery of costs under the Polanco Redevelopment Act are (1) the property is located within a redevelopment project area; (2) a release of a hazardous substance is present within the project area; (3) reimbursement is sought from a defendant who is a responsible party; (4) the redevelopment agency has provided the responsible party with a 60-day notice requesting a remedial action plan for the property; (5) the responsible party failed to submit a remedial action plan or failed to submit a plan the redevelopment agency could approve; (6) the redevelopment agency reached agreement on a remedial action plan with a regulatory agency overseeing the redevelopment project; and (7) the redevelopment agency incurred costs to remedy or remove the hazardous substance as necessary to implement the approved plan); *see also* DOTY ET AL., *supra* note 87, at 1; FOLEY & LARDNER, *POLANCO REDEVELOPMENT ACT OVERVIEW* (2002), available at http://www.foley.com/files/tbl_s31Publications/FileUpload137/858/Polanco_Act.pdf.

⁹⁰ CAL. HEALTH & SAFETY CODE § 33459.3(a) (Westlaw 2007); *see* DOTY ET AL., *supra* note 87, at 2, 7 (“[D]uly prepared” means a conforming assessment. “Section 33459.1(e) provides that the redevelopment agency may require ‘the owner [but not the operator] of the property to conduct an assessment in accordance with standard real estate practices for conducting phase I or phase II environmental assessments.’” As of November 1, 2006, Phase I assessments are subject to the more exacting standards of the U.S. EPA All Appropriate Inquiries rule (in the U.S. EPA’s Standards and Practices for All Appropriate Inquiries, 40 C.F.R. pt. 312, 70 Fed. Reg. 66,070 (Nov. 1, 2005). The recent ASTM E1527-05 publication has similar protocols. Phase II assessments generally involve the collection and analysis of site samples).

⁹¹ These agencies include the Department of Toxic Substances Control, Regional Water Quality Control Board, or authorized local agency. CAL. HEALTH & SAFETY CODE § 33459.3(a); *see* DOTY ET AL., *supra* note 87, at 7.

⁹² CAL. HEALTH & SAFETY CODE § 33459.3(a); DOTY ET AL., *supra* note 87, at 7 (The five enumerated California environmental statutes are: (1) the Porter Cologne Water Quality Control Act (CAL. WATER CODE §§ 13000-14958 (Deering 2007), the main enforcement statute used by the State Water Resources Control Board and the nine Regional Boards; (2) the Hazardous Waste Control law administered by DTSC (CAL. HEALTH & SAFETY CODE §§ 25100-25249 (Deering 2007)); (3) California’s general underground tank statute (CAL. HEALTH & SAFETY CODE §§ 25280-25299.8 (Deering 2007)); (4) California’s petroleum underground storage tank statute (CAL. HEALTH & SAFETY CODE §§ 25299.10-25299.99.3 (Deering 2007)); and (5) the Hazardous Substance Account Act (i.e.; California’s state Superfund law) (CAL. HEALTH & SAFETY CODE §§ 25300-25395.45 (Deering 2007))).

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statutes are for water, toxic waste, underground tanks (petroleum and other), and CERCLA sites.⁹³

ii. *California Land Environmental Restoration and Reuse Act (SB 32)*

Used less frequently, but enacted specifically to remediate brownfields, the California Land Environmental Restoration and Reuse Act (Senate Bill 32—"SB 32"), passed in 2001, established a local cleanup program.⁹⁴ For example, under SB 32, the City of Richmond could have led the Campus Bay cleanup. SB 32 also requires the Cal/EPA to provide a variety of information related to brownfields cleanups, and to develop screening values for hazardous substances commonly found at brownfields sites.⁹⁵ The purpose of SB 32 was to encourage brownfield development. Subsequently, the legislature passed an act to address liability for brownfield cleanups.

iii. *The California Land Reuse and Revitalization Act of 2004 (AB 389)*

The California legislature passed the California Land Reuse and Revitalization Act of 2004 (Assembly Bill 389—"AB 389").⁹⁶ It intends to promote brownfield cleanup by providing liability relief through protections for developers, innocent landowners, and contiguous property owners. The Act offers less liability protection than the federal brownfields initiative, the SBBRA.⁹⁷ AB 389 establishes a process for eligible property owners to get immunities, site assessments, and response actions when necessary.⁹⁸ The intent of the federal and state legislation is to clean contaminated properties and return them to use. The two greatest hurdles for brownfield cleanup are liability and

⁹³ CAL. HEALTH & SAFETY CODE § 33459.3(a) (Deering 2007); DOTY ET AL., *supra* note 87, at 7.

⁹⁴ Brownfield Program: California Land Environmental Restoration and Reuse Act, <http://www.calepa.ca.gov/Brownfields/SB32.htm> (last visited Nov. 26, 2006).

⁹⁵ *Id.*

⁹⁶ California Land Reuse and Revitalization Act of 2004, CAL. HEALTH & SAFETY CODE §§ 25395.110-25395.119 (Deering 2007); California Land Reuse and Revitalization Act of 2004, Assemb. B. 389 (Cal. 2004), *available at* <http://www.calepa.ca.gov/Brownfields/AB389/default.htm> (last visited Nov. 26 2006).

⁹⁷ CHARLES BARTSCH, GETTING STARTED WITH BROWNFIELDS: KEY ISSUES AND OPPORTUNITIES: WHAT COMMUNITIES NEED TO KNOW 7 (Northeast-Midwest Institute 2006); *see also* John Harris, *Governor Signs AB 389 Providing Liability Relief to Purchasers of Brownfield Sites*, REDEV. J., NOV. 2004 at 3, *available at* <http://www.calredevelop.org/AM/TemplateRedirect.cfm?template=/CM/ContentDisplay.cfm&ContentID=2514>; *see also* California Land Reuse and Revitalization Act of 2004, *supra* note 96.

⁹⁸ Harris, *supra* note 97, at 3.

investment.

III. APPLYING FEDERAL AND STATE LAWS TO BROWNFIELDS LIABILITY AND INVESTMENT

The risks of brownfield development are generally understood, but the *uncertainty* of the likelihood of potential costs and the amount of money they will involve remains a major problem for remediation and development projects.⁹⁹ The uncertain risks of brownfield development stem from liability and investment.¹⁰⁰ Liability risk is the risk of a lawsuit to recover cleanup costs under CERCLA, undiscovered contamination, and damages to other property owners for off-site contamination (i.e., migration of pollution to adjoining properties). Investment risk is the risk that the developers' investment-backed expectations that the project will be feasible and profitable are inaccurate.

A. UNCERTAIN LIABILITY RISK

Concerns about liability complicate and hinder remediation efforts.¹⁰¹ Liability is often treated as a single factor, but it is really a combination of various elements that are dependent on the future site use and choice of remediation.¹⁰² Potentially contaminated brownfield properties can carry a stigma sufficient to thwart potential deals or devalue the property.¹⁰³ The importance of the liability threat has most often commanded attention in discussions of brownfield programs.¹⁰⁴ Both federal and state cleanup liability laws can apply at any site, not just those on the CERCLA National Priorities List.¹⁰⁵ This exposure to

⁹⁹ PETER B. MEYER & H. WADE VANLANDINGHAM, RECLAMATION AND ECONOMIC REGENERATION OF BROWNFIELDS: ISSUES OF RISK AND UNCERTAINTY IN BROWNFIELD DEVELOPMENT 9 (US Economic Development Administration 2000).

¹⁰⁰ U.S. CONFERENCE OF MAYORS, RECYCLING AMERICA'S LAND: A NATIONAL REPORT ON BROWNFIELDS REDEVELOPMENT, VOLUME IV 10, 14 (2003).

¹⁰¹ See Edwin K. Tam & Philip H. Byer, *Estimating the Liability of Redeveloped Contaminated Lands*, 130 J. URB. PLAN. & DEV. 184, 184 (2004).

¹⁰² *Id.*

¹⁰³ Chang & Sigman, *supra* note 74, at 7 n.26 ("Given the broad definition of 'disposal,' some courts have held prior owners liable even if they engaged in no active disposal themselves if they owned the land while wastes previously deposited on the land continued to leak or spill during their ownership. (citations omitted).").

¹⁰⁴ MARK REISCH, 97-731: SUPERFUND AND THE BROWNFIELDS ISSUE n.24 (Congressional Research Service 2001) (citing U.S. GAO, SUPERFUND: EPA'S USE OF FUNDS FOR BROWNFIELD REVITALIZATION GAO/RCED-98-87 at 28 (Mar. 1998)).

¹⁰⁵ *Id.*

potential liability has the effect of limiting both private and public capital for financing cleanups and reuse.¹⁰⁶

Transactions involving contaminated property can increase liability even if no additional contamination is discovered.¹⁰⁷ In their National Bureau of Economic Research Working Paper, *The Effect of Joint And Several Liability Under Superfund on Brownfields Working*, Law Professor Howard F. Chang and Economics Professor Hilary Sigman note that selling contaminated property can increase liability because the number of PRPs can increase with a sale.¹⁰⁸ Since PRPs do not know what other PRPs will do at each step (e.g., whether they will add contamination, settle with the government, or go to trial) the liability of one party in the transaction may increase, thus lessening the incentive to participate in the transfer of contaminated property.¹⁰⁹ Chang and Sigman list four ways the liability to a party in a contaminated property transaction can increase. First, a sale may increase the share of liability that a seller and a buyer can expect to pay as a group.¹¹⁰ Second, a sale may increase the amount of damages that the government can expect to recover from the defendants at trial.¹¹¹ Third, a sale may increase the total litigation costs that a buyer and a seller may face as a group.¹¹² Fourth, game theory¹¹³ suggests that a sale may increase the amount that the government can expect to get from defendants in a settlement for contaminated property (because each party fears the other will settle and leave it to bear the remaining liability).¹¹⁴ The fear of liability for transactions involving contaminated property leads to "mothballing," where property owners keep vacant or underused property off the market for fear of liability.¹¹⁵

¹⁰⁶ GORDON, *supra* note 5.

¹⁰⁷ Chang & Sigman, *supra* note 74, at 10 (If the sale of a property increases the number of available defendants, and each are jointly and severally liable, then the expected liability of the buyer and seller taken together increases as a group.).

¹⁰⁸ *Id.* at 5, 7, 10-32.

¹⁰⁹ *Id.*

¹¹⁰ *Id.*

¹¹¹ *Id.*

¹¹² *Id.*

¹¹³ Deardorff's Glossary of International Economics, <http://www-personal.umich.edu/~alandear/glossary/g.html> (last visited July 4, 2007) ("[M]odeling of strategic interactions . . . used in economic models where the numbers of interacting agents (firms, governments, etc.) are small enough that each has a perceptible influence on the others."); *see also* Econ 100 Glossary, <http://www.econ100.com/eu5e/open/glossary.html> (last visited July 4, 2007) ("A method of analysing strategic behaviour.").

¹¹⁴ Chang & Sigman, *supra* note 74, at 5, 7, 10-32.

¹¹⁵ GREG ROGERS, BROWNFIELD NEWS: POINT/COUNTERPOINT: COUNTERPOINT: MOTHBALLING AND THE BALANCE OF PAIN (Environomics Communications, Inc. 2004) (where

Chang and Sigman's research also found, applying economic game theory analysis to CERCLA liability, that contaminated property transactions are inefficient because the price of the property can be discounted by the potential liability, but the amount the price is lowered will always be lower than the social benefits of the sale.¹¹⁶ The social benefits include the increased likelihood of recovering the full cost of cleanup from non-bankrupt PRPs, the potential health benefits from cleaning up contaminated property, and the range of economic benefits from development.¹¹⁷ Much brownfield legislation focuses on liability, trying to correct some of the problems noted by Chang and Sigman in order to capture the benefits.

Federal and California legislation aims to clarify and decrease purchaser liability.¹¹⁸ Federal agencies observe state settlements in accord with federal requirements.¹¹⁹ The U.S. EPA has worked with the states to fashion agreements and settlements that limit liability when targets are met, so that settlements are not reopened.¹²⁰ Prospective Purchaser Agreements can improve pre-buying decisionmaking by resolving cleanup liability before a purchase.¹²¹ A main purpose of the

properties with known or suspected contamination are mothballed because corporate decision makers perceive the pain of doing so to be less than the pain of going to market), *available at* http://www.brownfieldnews.com/Archive/0410October/V8I4_point_counterpoint.htm; *see also* C. GREGORY ROGERS, FINANCIAL REPORTING AND LAND REVITALIZATION (Advanced Environmental Dimensions 2006) (Materials for Brownfields 2006 Conference presentation) (historical accounting rules facilitated non-disclosure and under-disclosure by presuming a loss to arise from a legal claim), *available at* http://www.brownfields2006.org/proxy/document.aspx?source=database&TableName=v_SessionAttachments&IdField=SessionAttachmentID&ID=1682&ContentField=Document&ContentTypeField=DocumentContentType&DocumentTitleField=DocumentTitleNoPath.

¹¹⁶ Chang & Sigman, *supra* note 74, at 5, 7, 10-32.

¹¹⁷ *Id.*

¹¹⁸ *See, e.g.,* U.S. EPA Negotiated Rulemaking on All Appropriate Inquiry, <http://www.epa.gov/brownfields/regneg.htm> (last visited Aug. 1, 2007) (establishing regulatory requirements "for the purposes of qualifying for certain landowner liability protections under CERCLA.").

¹¹⁹ U.S. ENVTL. PROT. AGENCY, BROWNFIELDS FEDERAL PROGRAMS GUIDE 42 (2004) (noting DOJ commitment "to using settlements and assets to assist with brownfields redevelopment. . ."), *available at* <http://www.lgean.org/documents/bfguide.pdf>; *see also* DEPT. TOXIC SUBSTANCES CONTROL, FACT SHEET: PROSPECTIVE PURCHASER POLICY 2 (2001), *available at* http://www.dtsc.ca.gov/SiteCleanup/Brownfields/upload/FS_SMP_Prospective-Purchaser.pdf (Outlining California's Prospective Purchaser Policy) [hereinafter DTSC PPA].

¹²⁰ U.S. Env'tl. Prot. Agency, Sustainable Management Approaches and Revitalization Tools, Liability, <http://www.smart.org/smart/dynamic/resource/sn-liability.xml.pdf> (last visited Nov. 26, 2006) (outlining standards with which compliance is necessary to avoid liability, *but* settlements can be reopened).

¹²¹ Prospective Purchaser Agreements, <http://www.epa.gov/region4/ead/legal/ppa.htm> (last visited Nov. 27 2006) (a PPA is a contract between EPA, the Department of Justice and the prospective purchaser of a Superfund Property that allows the prospective purchaser to acquire the

federal brownfields initiative was to clarify federal liability.¹²²

A new U.S. EPA rule required by the SBBRA, which became effective November 1, 2006, set federal standards for the conduct of "all appropriate inquiries" ("AAI").¹²³ AAI is the process of evaluating a property for potential environmental contamination and assessing potential liability for any contamination present at the property.¹²⁴ AAI before acquisition is required for CERCLA liability protections.¹²⁵ Parties receiving U.S. EPA site-specific and assessment grants must conduct AAI.¹²⁶

Proponents hope the AAI rule will be another means of limiting liability, which will further encourage brownfield remediation.¹²⁷ The new AAI should greatly increase the number of complex environmentally impaired sites where AAI is conducted.¹²⁸ The rule may be applicable to borrowers needing a defense or liability exemption to owner liability under CERCLA, though lenders typically rely on the

property, after meeting certain conditions, without incurring federal/Superfund liability).

¹²² Espinosa, *supra* note 9, at 13-14 (the purposes of Brownfields Action Agenda were to stimulate brownfields redevelopment and to clarify issues regarding CERCLA liability).

¹²³ Carl Feldbaum, *A Risk of Environmental Overkill*, MERGERS & ACQUISITIONS, Aug. 2006, at 42 ("Before starting down the AAI road, buyers, sellers, and advisers should carefully consider whether AAI would be practical and serve the interests of the deal," because it could cost more than the same without following the new AAI rule.); Allen Hooper, *How will 'All Appropriate Inquiry' Affect Your Bank's Commercial Real Estate Lending Policies?*, MICH. BANKER, Apr. 2005, at 32 (the AAI rule "is intended to eliminate uncertainty regarding what standard of due diligence is necessary to benefit from landowner liability protections [under CERCLA]." The increased effort to comply will increase costs.); Thomas O. Jackson, *The EPA's Proposed All Appropriate Inquiries Rule and the Appraisal of Contaminated Properties*, APPRAISAL J., Spring 2004, at 152-53 (concluding new AAI rule "has the prospective purchaser determine the impact of contamination value, but gives incomplete guidance on how to make this determination," serving no one's interests).

¹²⁴ PATRICIA OVERMEYER, FINAL RULE SETTING FEDERAL STANDARDS FOR ALL APPROPRIATE INQUIRIES (U.S. EPA Office of Brownfield Cleanup and Redevelopment 2006) (materials accompanying presentation for Brownfields 2006 Conference) (AAI is also referred to as "environmental site assessment standards" or "environmental due diligence"), *available at* http://www.brownfields2006.org/proxy/document.aspx?source=database&TableName=v_SessionAttachments&IdField=SessionAttachmentID&ID=1702&ContentField=Document&ContentTypeField=DocumentContentType&DocumentTitleField=DocumentTitleNoPath.

¹²⁵ *Id.*

¹²⁶ *Id.*

¹²⁷ JULIE KILGORE, IMPLEMENTING AAI ENVIRONMENTAL PROFESSIONAL INDUSTRY SECTOR (Wasatch Environmental 2006) (materials accompanying presentation for Brownfields 2006 Conference), *available at* http://www.brownfields2006.org/proxy/document.aspx?source=database&TableName=v_SessionAttachments&IdField=SessionAttachmentID&ID=1701&ContentField=Document&ContentTypeField=DocumentContentType&DocumentTitleField=DocumentTitleNoPath.

¹²⁸ *Id.*

secured creditor exemption,¹²⁹ not the BFP defense.¹³⁰ The BFP defense would be helpful if lenders took a management role beyond the scope of the "secured creditor exclusion."¹³¹ Additionally, lenders in the secondary market may require AAI use.¹³² The federal standards also apply to state agreements.

In California, the agencies administering brownfields (the Regional Water Quality Control Board "RWQCB," and the Department of Toxic Substances Control "DTSC") can enter into Prospective Purchaser Agreements ("PPAs") to facilitate cleanup and redevelopment.¹³³ In a

¹²⁹ GERALD L. POUNCEY, JR., ENVIRONMENTAL CONCERNS ASSOCIATED WITH FINANCING & OWNING COMMERCIAL PROPERTIES (Morris, Manning & Martin, LLP 2007) (CERCLA includes a secured creditor exemption that "purports to immunize from liability lenders who otherwise would be liable as 'operators' or 'owners' due to their efforts to realize on their collateral."), available at http://www.mmmlaw.com/publications/article_detail.asp?serviceid=4&articleid=75.

¹³⁰ Nicholas J. Harding, *BREAKING DOWN THE EPA'S NEW AAI RULES: "All Appropriate Inquiry" regulations will add to reports' thickness, cost*, CONN. L. TRIB., Apr. 2007, at 1 (noting Federal Deposit Insurance Corporation examiner "will review an institution's environmental risk program as part of the examination of its lending and investment activities," so even if a lender relies on the secured creditor exemption they will be involved, and are interested, in AAI and the BFP defense. Logically, lenders will switch to the BFP defense if it costs less or if they are forced to.), available at http://www.leasing-lawyers.net/article/pdf/145/NJH_CT_Law_Trib_Article.pdf.

¹³¹ LAWRENCE SCHNAPF, MAKING THE WORLD SAFE FOR BANKS AND COMMERCIAL REAL ESTATE DEVELOPERS: OVERVIEW OF LENDER LIABILITY UNDER ENVIRONMENTAL LAWS, 2005 A.B.A. SEC. BUS. L. 6, n23, available at <http://www.abanet.org/buslaw/newsletter/0036/materials/pp3.pdf> (the CERCLA secured creditor's exemption excludes those holding an ownership interest primarily to protect a security interest from the definition of "owner or operator" so long as the ownership interest holder does not "participate in the management" of the facility or vessel. Under the BFP, a purchaser may knowingly acquire contaminated property and not be liable for remediation if it satisfies nine conditions); *id.* at n.23 (citing 42 U.S.C. § 9601(20)(E)(ii)) (a lender will not be considered a CERCLA owner or operator if it did not participate in the management of a facility prior to foreclosure, forecloses on the facility or vessel, and then follows certain requirements. After foreclosure, the lender may maintain business activities, wind up operations, undertake a response action in accordance with the NCP or under the direction of an on-scene coordinator, or otherwise take any other actions to preserve, protect or prepare the vessel or facility prior to sale or disposition provided the lender tries to sell, release or otherwise divest itself of the facility or vessel at the earliest practicable, commercially reasonable time, and on commercially reasonable terms after taking into account market conditions and legal or regulatory requirements.).

¹³² KILGORE, *supra* note 127.

¹³³ Espinosa, *supra* note 9, at 1, 30, n.42 (describing various VCP liability assurances states can issue); see also R. Michael Sweeney, *Brownfields Restoration and Voluntary Cleanup Legislation*, 2 ENVTL. L. 101, 118 (1995) (citing Joel B. Eisen, *Brownfields of Dreams?: Challenges and Limits of Voluntary Cleanup Programs and Incentives*, 1996 U. ILL. L. REV. 883, 954 (1996)) (discussing a "no association" letter in Minnesota, which does not guarantee that the state will not force the developer to clean up the site if unknown contamination presents itself in the future); Cal/EPA Fact Sheet: Brownfields and Prospective Purchaser Agreements, <http://www.calepa.ca.gov/Publications/FactSheets/1997/brownflds.htm> (last visited Nov. 26, 2006) (discussing primarily RWQCB PPAs) [hereinafter CAL/EPA Fact Sheet]; Cal/EPA Regulatory Cleanup Programs - Innovative Regulatory Tools

typical PPA, a prospective purchaser agrees to ensure that complete cleanup and any long-term operation and maintenance requirements, and institutional controls, will be implemented at a contaminated site.¹³⁴ The administering agency agrees not to bring an action against the owner (and subsequent owners) so long as the terms of the agreement are met.¹³⁵ The property purchaser must provide reasonable access for the parties responsible for conducting the cleanup and must not contribute to any pollution at the site.¹³⁶

While California law offers little liability protection, other states have more radical approaches. New Jersey gives immunity from cleanup and removal costs to public entities.¹³⁷ In contrast, California does not limit liability to the extent of the federal floor. California's conservatism in limiting liability, vis-à-vis New Jersey, has a number of justifications. New Jersey has the most brownfields in the country,¹³⁸ increasing the incentive to remediate them and the public-health benefits of any gains. In comparison, California has considerably fewer brownfield sites and a strong environmental lobby loath to budge from the polluter-pays principle. California's strong real estate market¹³⁹ also makes many expensive remediations feasible investments. The difference between the California and New Jersey approaches is indicative of California's unwillingness to decrease liability.¹⁴⁰ California legislators and voters

<http://www.calepa.ca.gov/Brownfields/RegCleanup.htm> (last visited Nov. 26, 2006); DTSC PPA, *supra* note 119, at 1-2.

¹³⁴ Cal/EPA Fact Sheet, *supra* note 133.

¹³⁵ *Id.*

¹³⁶ Eisen, *supra* note 27, at 954; *see also* Cal/EPA Fact Sheet, *supra* note 133.

¹³⁷ N.J. Transit Corp. v. Cat in the Hat, LLC, 803 A.2d 114, 116 (N.J. Super. Ct. App. Div. 2002) (furthering the immunity from cleanup and removal costs conferred on the State and other public entities by N.J. Stat. Ann. § 58:10-23.11g-d(4)).

¹³⁸ Scorecard, The Pollution Information Site, http://www.scorecard.org/env-releases/land/state.tcl?fips_state_code=34 (last visited Nov. 26, 2006) (New Jersey has the most Superfund sites).

¹³⁹ California Real Estate Median Prices of Existing Homes since 1968, <http://www.realestateabc.com/graphs/calmedian.htm> (last visited Nov. 26, 2006) (California has desirable real estate).

¹⁴⁰ Policy and Practice Goals for the Center for Creative Land Recycling, <http://www.cclr.org/goals.htm> (last visited Apr. 1, 2007) ("Unfortunately, the AB389 [Cal. bill granting liability relief] program affords a much lower level of liability protection than do the federal BFPP protections. While the federal protections limit the obligation of new purchasers of brownfields to source removal (i.e., soil contamination), AB389 imposes full liability (including groundwater contamination) on the innocent purchaser if a responsible party cannot be found. In addition, unlike with the federal process, scope of work is negotiated after the agreement is signed, resulting in a high level of *uncertainty* in the duration and expense of remediation." (emphasis added)).

seem unlikely to limit liability substantially in the future.¹⁴¹ Californians are reluctant to give developers what they perceive as a windfall in reducing liability for valuable land.¹⁴² A study of different outcomes under the CERCLA program observed that “[a]ny alternative that eliminates Superfund liability for a subset of sites could diminish—if not eliminate—the current incentives PRPs face both to clean up sites not on the NPL [brownfield sites], and also to carefully handle hazardous substances not regulated under other statutes.”¹⁴³

The risk of liability increases the risk that the investment will not be profitable. Fear that projects will be made infeasible or unprofitable because of liability costs reduces the availability of investment and financing for brownfield development.

B. UNCERTAIN INVESTMENT RISK

Funds necessary for brownfield redevelopment vary with each step in the remediation process: assessment, remediation, or redevelopment.¹⁴⁴ Traditionally, different types of capital were scarce, if not completely unavailable, for each of these stages.¹⁴⁵ This was, in part,

¹⁴¹ California Land Reuse and Revitalization Act of 2004, *supra* note 96; *see also* California Land Reuse and Revitalization Act of 2004, Assemb. B. 389 (Cal. 2004), *available at* <http://www.calepa.ca.gov/Brownfields/AB389/default.htm> (last visited Nov. 26 2006) (California’s most recent brownfield law does not limit liability to the extent of SBRR).

¹⁴² *Lands of Lost Opportunity: What Can Be Done to Spur Redevelopment at America’s Brownfield Sites?: Hearing Before the H. Reform Subcomm. on Federalism and the Census.*, 108th Cong. (Apr. 5, 2005) (statement and testimony of Jonathan Phillips, Cherokee Investment Partners) (Cherokee Investment Partners, LLC is the world’s largest investor in brownfield redevelopment).

¹⁴² Ronald G. Aronovsky, *Article: Federalism and CERCLA: Rethinking the Role of Federal Law in Private Cleanup Cost Disputes*, 33 *ECOLOGY L.Q.* 1, 33 n.144 (2006) (West. Prop. Servs. Corp. v. Shell Oil Co., 358 F.3d 678, 690 (9th Cir. 2004). Determining equitable division of costs between parties, “[t]he court noted that issues such as whether the non-polluting landowner knew of the contamination before purchasing the property and received a discount in the purchase price (thus raising the potential of a windfall or ‘double-recovery’ if the discount exceeded cleanup costs).”).

¹⁴³ PERCIVAL ET AL., *supra* note 4, at 435 (citing Resources for the Future study examining five options for CERCLA liability, including a number that would relieve PRPs of liability for certain categories of sites).

¹⁴⁴ U.S. ENVTL. PROT. AGENCY, *BROWNFIELDS SOLUTIONS SERIES: ANATOMY OF BROWNFIELD REDEVELOPMENT* EPA-560-F-06-245, at 2-4 (2006), *available at* http://www.epa.gov/swerosps/bf/anat_bf_redev_101106.pdf.

¹⁴⁵ Glenn R. Mueller & Michael J. Crean, *The last opportunity investment at the end of this real estate cycle?*, 19 *REAL EST. FIN.* 12, 13-14, 16 (2002) (In the 90s, a first wave of specialty brownfield development companies entered the market. Also identifying stages in cleanup and development of brownfields.); FRANCES STANLEY, *ONE MAN’S TRASH IS ANOTHER MAN’S TREASURE: BROWNFIELDS AND THE REDEVELOPMENT OF DISADVANTAGED NEIGHBORHOODS* n.15 (Federal Reserve Bank of Richmond 1998), *available at* http://www.richmondfed.org/publications/community_affairs/marketwise_topics/mw5.cfm (CERCLA “has generated much of the fear that lenders have concerning their liability associated

because liability extended to private lenders in some cases.¹⁴⁶ Federal and California legislators have since limited or eliminated lender CERCLA liability.¹⁴⁷ However, the perception of potential liability still limits the availability of financing.¹⁴⁸

A market perception stigma can impact value beyond the purchase price because liability avoidance requires greater diligence.¹⁴⁹ Further, remediation discussions elicit citizen concern over public health.¹⁵⁰ Citizen concern subjects projects to greater scrutiny and exposes lenders to "reputational risk."¹⁵¹ Increased concern over public health also increases the risk of a project being delayed, thus increasing the investment risk, because delays generally increase costs.¹⁵² The risk for lenders declines later in transactions, but risk is not eliminated after remedial activities.¹⁵³ Commentators have noted a range of factors, in addition to the price tag and amount of time for a cleanup, that potentially impact developer interest and the availability of financing,

with lending monies for redeveloping brownfields," and discussing the security interest exemption to CERCLA that protects banks foreclosing on properties from being liable as an owner or operator under CERCLA. Note 15 cites the U.S. Envtl Prot. Agency Policy on Interpreting CERCLA, 65 Fed. Reg. 36, 423-25 (July 7, 1997)).

¹⁴⁶ SCHNAPF, *supra* note 131, at 5-6 ("[T]he lender faced CERCLA liability itself if it foreclosed or if actions to protect its security interest its actions were viewed as operating the facility before or after foreclosure. See 56 Fed. Reg. 28798 (June 24, 1991) (issues reviewed in preamble to EPA proposed lender liability rule). This liability could be larger than the value of the loan or the property.").

¹⁴⁷ Congress enacted the Asset Conservation, Lender Liability and Deposit Insurance Protection Act that substantially amended the secured creditor exemptions of CERCLA and RCRA in Omnibus Consolidated Appropriations Act of 1997, P.L. 104-208 §§ 2501-2505, 110 Stat. 3009 (Sept. 30, 1996); 42 U.S.C.A. § 9601 (Westlaw 2007) (definition excluding non-managing lenders); see SCHNAPF, *supra* note 131, at 5-6. In California, CAL. HEALTH & SAFETY CODE §§ 25548-25548.7 (Deering 2007); Denise Ferkich Hoffman & Barbara Coler, *Brownfields and the California Department Of Toxic Substances Control Key Programs and Challenges*, 31 GOLDEN GATE U.L. REV. 433, 436 (2001) (citing the California specific state liability protection).

¹⁴⁸ Mueller & Crean, *supra* note 145, at 12 (where demand is great, there is less reduction in price because of stigma).

¹⁴⁹ *Id.*

¹⁵⁰ Kris Wernstedt & Robert Hersh, "Through a Lens Darkly" — *Superfund Spectacles on Public Participation at Brownfield Sites*, 9 RISK: HEALTH, SAFETY & ENV'T 153, 153 (1998) (discussing citizen questioning hazardous waste decisions by professional risk managers, noting "hazardous wastes in residential neighborhoods . . . galvanized public concern," and led to Superfund); see also Jill S. Litt, Nga L. Tran, & Thomas A. Burke, *Examining Urban Brownfields through the Public Health "Macroscopic"*, 110 Supp. 2 ENVTL. HEALTH PERSP. 183, 183 (2002) (expressing scholarly concern, arguing that scholarship should look at brownfields through the lens of public health).

¹⁵¹ SCHNAPF, *supra* note 131, at 2 (reputational risk is where lenders do not want to be associated with property that may be stigmatized or that poses risk to the local community).

¹⁵² *Id.*

¹⁵³ Mueller & Crean, *supra* note 145, at 18.

including (1) indemnification, (2) certainty over the nature and extent of contamination, (3) existence of remediation plan approval, (4) regulatory framework for contamination, and (5) third-party lawsuits.¹⁵⁴ As a whole, financing solutions have been effective at mitigating investment risk, but insufficient to encourage development of contaminated properties further from the margin.¹⁵⁵

Solutions to the financing problem are varied and innovative.¹⁵⁶ Examples include public programs for loans and grant programs that fund assessment, pay for environmental insurance premiums, or cover costs in excess of private loans.¹⁵⁷ Addressing private equity's unwillingness to lend for more than seventy-five percent of the cleanup, the U.S. EPA administers three grant programs, usually used for the initial assessment.¹⁵⁸ Tax benefits in the form of incentives, tax-exempt financing, and tax-advantage zones are some common incentive solutions for stimulating brownfield development.¹⁵⁹ Insurance is another solution.

Environmental insurance is used with increasing frequency and is appealing because it addresses both the liability and investment risks.

¹⁵⁴ *Id.* at 12, 13.

¹⁵⁵ See CHARLES BARTSCH, PROMOTING BROWNFIELD REDEVELOPMENT: ROLE OF PUBLIC-PRIVATE PARTNERSHIPS 8 (Northeast-Midwest Institute 2006), available at <http://www.nemw.org/brownfield%20public%20private.pdf> (noting that "partnerships are important to securing financial incentives" because "[t]hey can place the proper emphasis on the economic significance of brownfield redevelopment to the local community, and help to level the playing field especially for marginally viable sites by identifying and focusing available resources," implying these sites would not be developed absent the public private partnership); LENNY SIEGEL & ROBERT HERSH, HOMES, SCHOOLS, AND PARKS: WHERE, WHEN, AND HOW IS IT APPROPRIATE TO BUILD ON CONTAMINATED PROPERTIES? 7 (Center for Public Environmental Oversight 2006), available at <http://www.cpeo.org/pubs/Homes,Schools&Parks.pdf> ("Some have argued that if community-based organizations push for more extensive cleanups at brownfields sites . . . then cleanups and maintenance will cost more, making marginal brownfields projects that much harder to pull off.")

¹⁵⁶ CHARLES BARTSCH, BROWNFIELDS 101: THE FASTEST 75 MINUTES ON BROWNFIELD FINANCING, NOV. 2005, available at <http://www.nemw.org/brownfield%20financing%20101.ppt> [hereinafter BROWNFIELDS 101].

¹⁵⁷ CHARLES BARTSCH & BARBARA WELLS, STATE BROWNFIELD TAX INCENTIVES (Northeast-Midwest Institute 2006); see also BARTSCH, BROWNFIELDS 101, *supra* note 156; CHARLES BARTSCH & BARBARA WELLS, STATE BROWNFIELD TARGETED FINANCIAL ASSISTANCE (Northeast-Midwest Institute 2005) (public loans cover part of the value of the cleanup); see generally Janice E. Falini, *Comment: Using Environmental Insurance To Manage Risk Encountered In Non-Traditional Transactions*, 14 VILL. ENVTL. L.J. 95 (2003) (discussing environmental insurance for brownfield transactions).

¹⁵⁸ Jim Halverson, *Turning Your Brownfields Projects Green with EPA Dollars*, 26 PUB. MGMT. BUS. & FIN. (2005).

¹⁵⁹ BARTSCH & WELLS, STATE BROWNFIELD TAX INCENTIVES, *supra* note 157; see also BARTSCH, BROWNFIELDS 101, *supra* note 156; BARTSCH & WELLS, STATE BROWNFIELD TARGETED FINANCIAL ASSISTANCE, *supra* note 157.

Environmental insurance is a tool used to quantify and transfer risks related to brownfield cleanup costs from project stakeholders to an insurance company.¹⁶⁰ In the past, environmental insurance was difficult to obtain.¹⁶¹ Now, buying and cleaning property without environmental insurance is unusual.¹⁶² Insurance is replacing other remedies and indicates market maturity.¹⁶³ However, some environmental insurance exclusions are still being litigated.¹⁶⁴ Environmental insurance helps ensure redevelopment because companies do not run out of funds or go out of business under the burden of cleanup costs before completing development.¹⁶⁵ Estimating the uncertain costs of liability and investment risks to maintain profitability is problematic, which creates the demand for insurance.¹⁶⁶ In the past, government stepped in to provide insurance

¹⁶⁰ PAMELA E. BARKER, *MANAGING RISK AND INSURING SUCCESS: WHAT IS ENVIRONMENTAL INSURANCE*, (Godfrey & Kahn 2006) (materials accompanying presentation at Brownfields 2006 Conference) (citing Insurance and Brownfields Redevelopment, <http://epa.gov/brownfields/insurebf.htm>), available at <http://www.brownfields2006.org/proxy/SessionDocument.1768.aspx>.

¹⁶¹ George B. Flanigan, *Insurance Coverage for Environmental Claims*, 51 RISK MGMT. 28, 28-31 (2004).

¹⁶² Mark Ruquet, *Contractor Pollution Cover On The Rise*, 2006 NAT'L UNDERWRITER 14 (2006); see also Abelson, *Coverage for All*, 36 J. PROP. MGMT. 69 (2004); Mark E. Ruquet, *Environmental Insurance: No Longer Why, But Why Not?*, 107 NAT'L UNDERWRITER 10 (2003).

¹⁶³ DAVID R. BERG & GRANT FERRIER, *MEETING THE CHALLENGE: U.S. INDUSTRY FACES THE 21ST CENTURY, THE U.S. ENVIRONMENTAL INDUSTRY* at 10, 93-94 (U.S. Department of Commerce 1998) (discussing the growth in the U.S. environmental industry, noting the insurance industry today "largely manages pollution after it has been created" [i.e., cleanups], and discussing insurance market maturity in regard to general environmental risk (not specific to contaminated property cleanup)).

¹⁶⁴ Jennifer Bozeat, *Environmental Claims*, 106 BEST'S REVIEW 61 (2006); See also KANNER, *LOUISIANA INSURANCE LITIGATION FOLLOWING KATRINA AND RITA*, (Association of Trial Lawyers of American 2006) (Speech, Advocating for Hurricane Victims: Obtaining Just Compensation From Insurance Companies, for Association of Trial Lawyers of America, Insurance Law Section, Conference, Seattle, WA, July 16, 2006).

¹⁶⁵ U.S. ENVTL. PROT. AGENCY, *ENVIRONMENTAL INSURANCE HELPS ENSURE REDEVELOPMENT 2* (2003).

¹⁶⁶ SARAH S. HOLLIS, THOMAS LAMBERT & PETER B. MEYER, *UTILIZING ENVIRONMENTAL INSURANCE FOR BROWNFIELD REDEVELOPMENT, PRACTICE GUIDE # 4 AT 1* (2003):

Brownfield redevelopment has long had a reputation as burdened by extreme uncertainty and high risks of liability losses. As a result, risk management – and, more specifically – risk transfers to others – has always been a concern for brownfield redevelopers. Environmental insurance is a means by which some firms accept the risk burdens from others in return for a fee.

See also NANCY FRANK & JAYAVEL SOUNDERPANDIAN, *BROWNFIELDS TRIAGE: USING DECISION ANALYSIS TECHNIQUES TO IDENTIFY BROWNFIELDS FOR INVESTMENT 2* (1997), available at <http://www.uwm.edu/~frankn/brownfields.pdf> ("The challenge of redeveloping central city properties has been complicated in recent years by additional costs and financial risks associated with environmental liability.").

when market failures threatened market stability and efficacy.¹⁶⁷ The new AAI rules are an attempt to standardize risk assessment.¹⁶⁸ The federal government hopes they will reduce uncertainty about liability for contamination, which will, among other things, lower the costs and increase the availability of environmental insurance.¹⁶⁹ Some states, including Massachusetts and California, have adopted insurance pooling to address shortcomings in environmental insurance.

Massachusetts created an innovative program to curb the financial risks associated with brownfield cleanup.¹⁷⁰ Under Massachusetts' program, a nonprofit redevelopment agency administers a state-subsidized insurance program funded by appropriations.¹⁷¹ The program uses a single insurance carrier to provide standard pre-negotiated coverage to lenders and developers, with the state paying half the premium costs for qualifying projects.¹⁷² California policy makers developed a similar program after consulting with their Massachusetts counterparts.¹⁷³ California's program differs from that of Massachusetts by allowing more than one insurance provider, for greater coverage flexibility and to encourage competition among insurance providers.¹⁷⁴ In

¹⁶⁷ See, e.g., The Federal Deposit Insurance Corporation (FDIC) and Mortgage Reinsurance, FDIC, <http://en.wikipedia.org/wiki/FDIC> (last visited Nov. 27, 2006); Federal National Mortgage Association, http://en.wikipedia.org/wiki/Fannie_mae (last visited Nov. 26, 2006); Federal Home Loan Mortgage Corporation, Freddie Mac, http://en.wikipedia.org/wiki/Freddie_Mac (last visited Nov. 26, 2006).

¹⁶⁸ Kevin R. Murray, Patrick S. Malone, Steven C. Mason & Bret F. Randall, *EPA's Final "All Appropriate Inquiry" Rule to Become Effective in November*, CHAPMAN AND CUTLER ENVIRONMENTAL UPDATE, Apr. 2006, at 2 (discussing risk management — insurance is a form of risk management).

¹⁶⁹ *Id.*

¹⁷⁰ GORDON, *supra* note 5.

¹⁷¹ KRISTEN R. YOUNT & PETER B. MEYER, STATE BROWNFIELD INSURANCE PROGRAMS, 2006 12-14 (2006), available at http://www.epa.gov/swerosps/bf/pubs/state_report_2006.pdf; see also State of Vermont, Legislative Report: Insurance Products for Contaminated Properties, http://web.archive.org/web/20060211160650/http://www.bgs.state.vt.us/reports_2005/r2005-014.htm (last visited Aug. 8, 2007) (the Massachusetts Brownfields Act in 1998 created the Brownfields Redevelopment Access to Capital (BRAC) program and appropriated \$15 million to a nonprofit economic development organization to administer a state-subsidized insurance program. BRAC relies on a single insurance carrier that provides standardized pre-negotiated coverage packages to lenders and developers, with the state paying 50% of the premium costs for eligible projects) [hereinafter Vermont Insurance Report].

¹⁷² JEFF KEHNE, STATE LEADERSHIP IN PROMOTING INSURANCE-BASED SOLUTIONS TO BROWNFIELD REDEVELOPMENT CHALLENGES (Michael O. Hill ed., International Risk Management Institute 2006), available at <http://www.irmi.com/IrmiCom/Expert/Articles/2006/Hill11.aspx> (discussing the advantages of the state pre-negotiated insurance programs in Massachusetts and Wisconsin); see also Vermont Insurance Report, *supra* note 171.

¹⁷³ KEHNE, *supra* note 172; see also Vermont Insurance Report, *supra* note 171.

¹⁷⁴ KEHNE, *supra* note 172; see also Vermont Insurance Report, *supra* note 171.

the end, statewide insurance programs have suffered from the same problems as private environmental insurance for brownfield remediation.¹⁷⁵ The general experience with environmental insurance suggests that, due to loopholes or exemptions, policies seldom pay claims.¹⁷⁶ The availability and affordability of environmental insurance may not increase appreciably until insurers also gain greater confidence in risk assessments and cost estimates of cleanups.¹⁷⁷

Varying the level of cleanup with prospective use is another way to reduce investment risk. One thrust of state voluntary cleanup initiatives is to restructure the required level of cleanup to lower cleanup costs.¹⁷⁸ Many new state-law proposals require administering agencies to consider, and sometimes to adopt, “risk-based” cleanup levels.¹⁷⁹ In determining whether a remedy is “protective,” risk-based cleanups consider both the extent of human exposure and the absolute levels of residual contamination at a site.¹⁸⁰ Minnesota is among the states with sophisticated administrative actions, allowing phased site cleanups, with or in place of partial ones.¹⁸¹ New Jersey allows cleanup of one-third of a site.¹⁸² Oregon allows cleanups of a smaller fraction of a site and of utility rights-of-way across sites.¹⁸³ In determining the appropriate extent of remediation, the U.S. EPA recognized the importance of considering reasonably anticipated future use at CERCLA sites.¹⁸⁴ This reasoning can be extended to brownfields.

Abandoning the standard of cleanup to pre-contamination levels, risk-based cleanups implicitly trade the lesser cleanup for other benefits.¹⁸⁵ As one author bluntly put it, the statutes “envision voluntary cleanups that trade increased health risks to the affected community for

¹⁷⁵ KEHNE, *supra* note 172; *see also* Vermont Insurance Report, *supra* note 171.

¹⁷⁶ Vermont Insurance Report, *supra* note 172.

¹⁷⁷ *Id.*

¹⁷⁸ Ronald G. Aronovsky, *supra* note 142, at n.366 (allowing risk-based cleanup as a way of encouraging development); Deborah Lange & Sue McNeil, *Clean It and They Will Come? Defining Successful Brownfield Development*, 130 J. URB. PLAN. & DEV. 101, 101 (2004).

¹⁷⁹ *Id.*

¹⁸⁰ John F. Seymour, *Transfer of Federal Lands: Compliance with Section 120(h) of the Comprehensive Environmental Response, Compensation, and Liability Act*, 27 COLUM. J. ENVTL. L. 173, 196-197 (citing U.S. ENVTL. PROT. AGENCY, RISK ASSESSMENT GUIDANCE FOR SUPERFUND—HUMAN HEALTH EVALUATION MANUAL (1989)).

¹⁸¹ GORDON, *supra* note 5.

¹⁸² *Id.*

¹⁸³ *Id.*

¹⁸⁴ ELLIOT P. LAWS, MEMORANDUM: LAND USE IN THE CERCLA REMEDY SELECTION PROCESS: OSWER DIRECTIVE NO. 9355.7-04 3 (U.S. Environmental Protection Agency 1995).

¹⁸⁵ Aronovsky, *supra* note 142, at n.366.

the prospect of new jobs and higher tax revenues.”¹⁸⁶ Others argue, however, “that the risk-based cleanups simply tailor the cleanup to the risks that the contamination poses, a reasonable change from the previous system.”¹⁸⁷ In California, the appropriate level of cleanup has fueled debate on a number of projects.¹⁸⁸ A desire for smart-growth¹⁸⁹ infill development has also contributed to an unwillingness to vary cleanup levels in California, where residential use requires the highest-quality cleanup.¹⁹⁰ Many advocates of brownfield reuse hope redevelopments will incorporate smart-growth principles, such as mixed-use development (combining two or more of the types of development, usually residential and commercial).¹⁹¹ Smart-growth developments that include residential uses would require the highest-quality cleanup and, therefore, risk-based cleanups are contrary to this goal.

Agencies frequently impose future controls on a site to ensure the quality of a cleanup. For example, criticism of the Campus Bay cleanup included concern over the quality of the cleanup, given the projected use of the land.¹⁹² The waste was to be buried onsite rather than removed.¹⁹³ Citizens were concerned about the cleanup causing injury as the waste was moved and the possibility that the covered pile would leak after the cleanup was complete.¹⁹⁴ These concerns were exacerbated when dust created by heavy equipment working on the site blanketed the surrounding area.¹⁹⁵ Furthermore, in cleanups like the one at Campus

¹⁸⁶ *Id.*

¹⁸⁷ *Id.*

¹⁸⁸ Miguel Bustillo, *Cleanups Fuel Debate: How much is enough?*, L.A. TIMES., Dec. 1, 2003, at A1.

¹⁸⁹ Environmentally-sensitive land development with the goals of minimizing dependence on auto transportation, reducing air pollution, and making infrastructure investments more efficient. Pace Bus [Chicago area transit] Vision 2020 Glossary, <http://www.pacebus.com/sub/vision2020/glossary.asp> (last visited July 15, 2007).

¹⁹⁰ DEPT. OF TOXIC SUBSTANCES CONTROL & WATER BOARDS, OPTIMIZING BROWNFIELD CLEANUPS IN CALIFORNIA: AN OPEN EXCHANGE OF IDEAS AND INFORMATION 39 (2004) (residential use requires high-quality cleanup).

¹⁹¹ Smart Growth Glossary, <http://www.dnr.state.md.us/education/growfromhere/GLOSSARY.HTM> (last visited Nov. 26, 2006).

¹⁹² Richard Brenneman, *Environmental Review Questions Delay Richmond Project*, BERKELEY DAILY PLANET, July 23, 2004, available at, <http://www.berkeleydailyplanet.com/article.cfm?archiveDate=07-23-04&storyID=19296> [hereinafter Brenneman, *Environmental Review Questions*].

¹⁹³ Richard Brenneman, *Controversy Over Development of Toxic Richmond Site Continues Into New Year*, BERKELEY DAILY PLANET, Jan. 3, 2005, available at, <http://www.berkeleydailyplanet.com/article.cfm?archiveDate=01-03-05&storyID=20426>.

¹⁹⁴ *Id.*

¹⁹⁵ *Id.*

Bay where some contamination is left onsite, toxins can leak into the air from sealed piles of waste — “vapor intrusion.”¹⁹⁶ Recently, detractors of the Campus Bay cleanup and development plans were vindicated when the agency overseeing the cleanup found a number of violations by the cleaning parties in their handling of toxics at the site.¹⁹⁷

When allowing use-based, phased-in, or partial-site cleanups, administrators seek future requirements for the site, administratively enforceable agreements, and institutional controls to assure that risks will be managed and the public health protected.¹⁹⁸ These institutional controls can scare investors but are a common municipal tool for monitoring cleanup progress.¹⁹⁹ Detractors call future requirements “claw backs,”²⁰⁰ for the way they allow an organization to claw its way back to imposing conditions. The detractors argue that administrators make the project riskier for the developer by imposing “claw backs” because they can have unpredictable costs and that this not a viable strategy.²⁰¹ Economic incentives have been insufficient to counter liability and investment risks for many remediation projects, except for very large investors.²⁰² Cherokee Investment Partners, LLC—Campus Bay’s

¹⁹⁶ Richard Brenneman, *Toxic Richmond Sites May Trigger Change in State Law*, BERKELEY DAILY PLANET, Apr. 18, 2006 (discussing legislation that “focuses on sites where hazardous vapors—typically from a class of substances known as volatile organic compounds (VOCs) — pose a potential threat to people who live or work at a site.”); see also Brian E. Silber & Amy M. Romano, *Vapor Intrusion — Just When You Thought Your Site Was Cleaned Up*, 16 ENVTL. CLAIMS J., 257 (2004) (discussing liability for vapor intrusion).

¹⁹⁷ See Richard Brenneman, *Toxic Questions Surround Two Richmond Sites*, BERKELEY DAILY PLANET, July 6, 2007; Richard Brenneman, *Attorney Slams UC Response to Richmond Toxic Dump*, BERKELEY DAILY PLANET, July 17, 2007; Brenneman, *Environmental Review Questions*, *supra* note 192.

¹⁹⁸ GORDON, *supra* note 5.

¹⁹⁹ Posting by Peter B. Meyer, pbmeyer@louisville.edu, to Brownfields Internet Forum, brownfields@list.cpeo.org, regarding Subsidies, (Oct. 27, 2006, 02:20:12), available at <http://www.cpeo.org/lists/brownfields/2006/msg00473.html> (“some sort of ex-post monitoring, holding recipients responsible for what they promise, is needed.”).

²⁰⁰ 2006 CPEO Brownfields List Archive, Posting on behalf of Barry Trilling, to Peter B. Meyer (Nov. 1, 2006 4:28 PM), available at <http://www.cpeo.org/lists/brownfields/2006/msg00487.html> (“[q]uite simply, to safeguard the virtue of the subsidy mechanism we should not impose a bureaucratic police procedure that will discourage development activity.”).

²⁰¹ 2006 CPEO Brownfields List Archive, Posting by Bruce-Sean Reshen to Peter B. Meyer (Oct. 27, 2006, 14:33:37), available at <http://www.cpeo.org/lists/brownfields/2006/msg00472.html> (“it is also not a viable strategy to create more risk for the developer by setting up a system of clawbacks.”).

²⁰² *Lands of Lost Opportunity: What Can Be Done to Spur Redevelopment at America’s Brownfield Sites?: Hearing Before the H. Reform Subcomm. on Federalism and the Census.*, 108th Cong. at 85-86 (Apr. 5, 2005) (statement and testimony of Jonathan Phillips, Cherokee Investment Partners).

developer—is the largest purchaser of brownfields in the world.²⁰³

A recent U.S. Supreme Court decision resolved uncertainty about financing voluntary cleanups because liability for brownfield cleanups follows CERCLA.²⁰⁴ CERCLA allows PRPs to recover in two ways. If a party is itself liable under CERCLA, it can bring a cost recovery claim under section 107(a) of CERCLA, in which the defendant can be held *jointly and severally* liable for the cost of cleanup. Alternatively, a party can bring a contribution action under Section 113(f) for response costs it has incurred, for which the defendant may be *severally* liable.²⁰⁵ In *Cooper Industries, Inc. v. Aviall Services, Inc.*, (“*Aviall*”), the U.S. Supreme Court reversed longstanding jurisprudence and significantly circumscribed the rights of PRPs to pursue contribution under section 113(f) of CERCLA.²⁰⁶

Under *Aviall*, it is clear that a private party may not sue for contribution under section 113(f) unless it does so “during or following” a civil action filed against it.²⁰⁷ In other words, a contribution action may not be brought after a voluntary cleanup.²⁰⁸ *Aviall* left open the question of whether private parties (including PRPs) may sue under section 107(a)(4), which authorizes a cost-recovery action by “any other person” who has incurred response costs.²⁰⁹ Before *Aviall*, all of the courts of appeal had ruled that the answer was no, but those decisions were based on the assumption that private parties could sue to recover the costs of voluntary cleanup under section 113.²¹⁰ The Supreme Court resolved a circuit split that developed after *Aviall* concerning whether a private party could sue for contribution under 107(a) without the government first bringing an action.²¹¹ In *United States v. Atlantic Research*, the

²⁰³ *Id.*

²⁰⁴ *United States v. Atl. Research Corp.*, 127 S. Ct. 2331, 2335-39 (2007).

²⁰⁵ KARL S. BOURDEAU, A REVOLUTION IN REDEVELOPMENT & REVITALIZATION: OPTIONS FOR POTENTIALLY RESPONSIBLE PARTIES TO PURSUE RECOVERY OF RESPONSE COSTS IN THE WAKE OF THE AVIALL DECISION, 2 (Beverage & Diamond, P.C. 2006) (materials accompanying presentation at Brownfields 2006 Conference).

²⁰⁶ *Cooper Industries, Inc. v. Aviall Services, Inc.*, 543 U.S. 157, 161-62 (2004).

²⁰⁷ BOURDEAU, *supra* note 205, at 2.

²⁰⁸ *Id.* at 3.

²⁰⁹ 42 U.S.C.A. § 9607(a)(4)(B) (West 2007); *see also* U.S. EPA Superfund and Aviall FAQ, <http://www.epa.gov/compliance/resources/faqs/cleanup/superfund/aviall-faqs.html> (last visited Nov. 26, 2006).

²¹⁰ BOURDEAU, *supra* note 205, at 3-4; *see also* U.S. EPA Superfund and Aviall FAQ, <http://www.epa.gov/compliance/resources/faqs/cleanup/superfund/aviall-faqs.html> (last visited Nov. 26, 2006).

²¹¹ *Compare* *Consol. Edison Co. of N.Y. v. UGI Utils., Inc.*, 423 F.3d 90 (2d Cir. 2005) (private party may sue) *with* *E.I. Dupont De Nemours & Co. v. U.S.*, 460 F.3d 515 (3d Cir. 2006) (private party may not sue).

Court unanimously held that section 107(a) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) provides a right of contribution to land owners who remediate contaminated land before they are the subject of a federal or state enforcement action, thereby resolving the question left open in *Aviall*.²¹²

Methods of addressing uncertainty about brownfield cleanup risks have been successful enough to remediate many properties, giving rise to these court challenges. The stakes of cleanup liability are high; toxic cleanups are expensive.²¹³ Municipalities can mitigate the uncertainty of voluntary cleanups by partnering with redevelopment agencies and offering solutions to reduce both liability risk and investment risk.²¹⁴

C. MUNICIPAL PUBLIC-SECTOR LEADERSHIP IN BROWNFIELD REMEDIATION

Municipalities are deeply involved in brownfield remediation and redevelopment, fundamentally because of municipal control of land-use decisionmaking. Cities are implicated in brownfield cleanup and redevelopment in a number of ways: many cities are very interested in increasing tax revenue, cities can add value making otherwise unappealing projects attractive through tax incentives and the use of eminent domain—generally through a redevelopment agency, and city officials are the elected representatives closest to brownfield land-use and development decisions.

i. Municipal Control of Land Use

Municipally led brownfield development is practical because municipalities control land use and other site-specific factors.²¹⁵ Many

²¹² *United States v. Atl. Research Corp.*, 127 S. Ct. 2331, 2335-39 (2007); see also Jason Harrow, Thoughts on Oral Argument in *U.S. v. Atlantic Research*, SCOTUSBLOG (Apr. 27, 2007), http://www.scotusblog.com/movabletype/archives/2007/04/thoughts_on_ora.html; Amy Howe & Kevin Eide, *More on Today's Opinion in United States v. Atlantic Research Corp.*, SCOTUSBLOG (June 11, 2007), http://www.scotusblog.com/movabletype/archives/2007/06/more_on_todays_15.html.

²¹³ See, e.g., JULIE WOLK, THE TRUTH ABOUT TOXIC WASTE CLEANUPS: HOW THE EPA IS MISLEADING THE PUBLIC ABOUT THE SUPERFUND PROGRAM 12 (Sierra Club 2004), available at <http://www.sierraclub.org/toxics/factsheets/cleanups.pdf> ("unable to fund expensive cleanups" under CERCLA); Steven Milloy, *Junk Science: Light Bulb Lunacy*, FOXNEWS.COM (Apr. 29, 2007), <http://www.foxnews.com/story/0,2933,268747,00.html>.

²¹⁴ See generally CHARLES BARTSCH, PROMOTING BROWNFIELD REDEVELOPMENT: ROLE OF PUBLIC-PRIVATE PARTNERSHIPS, (Northeast-Midwest Institute 2006), available at <http://www.nemw.org/brownfield%20public%20private.pdf>.

²¹⁵ These include: (1) infrastructure serving the site, especially transportation; (2) local zoning

brownfield projects simply do not work without some kind of public-sector involvement, especially at the local level.²¹⁶ Hundreds of successful brownfield reuse projects have demonstrated that the public sector must make the first move to get projects off the ground.²¹⁷

ii. *Brownfields, Redevelopment, and Tax Revenue*

Cities with the greatest number of brownfields have the greatest interest in increasing tax revenue.²¹⁸ The Rust Belt²¹⁹ cities of the U.S. exemplify this problem; in the Rust Belt, businesses closed, residents departed, and brownfields were left in their wake.²²⁰ With the lack of taxpaying businesses and residents, revenue plummeted.²²¹ Detroit is the

and the likelihood and type of rezoning; (3) state and local tax burdens; (4) cost, skill and availability of labor for construction or business operations at the site; (5) public and private utility rates; (6) cost and availability of property and liability insurance; (7) local crime rates and the availability and cost of crime insurance; (8) procedures of the relevant regulatory agencies; and (9) local sentiment on political or community issues. Gordon, *supra* note 5; see NAT'L ASS'N OF LOCAL GOV'T ENVTL. PROF'LS & NORTHEAST-MIDWEST INST., UNLOCKING BROWNFIELDS: KEYS TO COMMUNITY REVITALIZATION 4, 5 (2004), available at <http://www.nalgep.org/ewebeditprof/items/O93F4460.pdf>.

²¹⁶ Bartsch, *Financing Brownfield Cleanup and Redevelopment*, *supra* note 29, at 26-31.

²¹⁷ *Id.*

²¹⁸ See Andrew J. Krmenc, *Sales Tax as Property Tax Relief? The Shifting Onus Of Local Revenue Generation*, 43 PROF. GEOGRAPHER 60-67 (1991); Paul G. Lewis, *Retail Politics: Local Sales Taxes and the Fiscalization of Land Use*, 15 ECON. DEV. Q. 21 (2001) ("Fiscal motivations are often assumed to shape local government land-use decisions and, thereby, patterns of metropolitan development." However, making land use decisions in order to increase sales tax revenue "means that localities with larger retail sectors will also enjoy greater sales tax revenues, and it may thus provide incentives for municipalities to attract and retain retail businesses to a greater degree than residential or industrial land uses."); see also CHARLES BARTSCH & BARBARA WELLS, LOCAL BROWNFIELD FINANCING TOOLS: STRUCTURES AND STRATEGIES FOR SPURRING CLEANUP AND REDEVELOPMENT 2 (Northeast-Midwest Institute 2006), <http://www.nemw.org/Brownfield%20local%20financing%20tools.pdf> (discussing tax increment financing, tax abatements, locally capitalized and operated revolving loan funds, and general obligation bonds).

²¹⁹ R. Jason Faberman, *Job flows and labor dynamics in the U.S. Rust Belt*, MONTHLY LAB. REV., SEPT. 2002 at 3 ("The Rust Belt region of the United States, comprising mostly States in the Upper Midwest and Mid-Atlantic portions of the country, gets its name from the large concentration of manufacturing activity located there.").

²²⁰ Fred Ellerbusch, *Brownfields: Risk, property, and community value*, 11 LOC. ENV'T 559, 561 (2006) (The Department of Housing and Urban Development "concluded that one in seven cities faced the 'double trouble' of long-term population loss and persistently high poverty rates."); JOHN E. ANDERSON, BIDDING FOR BUSINESS: THE EFFICACY OF LOCAL ECONOMIC DEVELOPMENT INCENTIVES IN A METROPOLITAN AREA 157 (2000) (citing Detroit as an example of "[t]he exodus of affluent residents, commercial activities, and new manufacturing activities to the outer suburbs of metropolitan America [from urban downtowns] has produced a local fiscal climate at the periphery that is usually more attractive than the blighted fiscal climate left behind in many central cities and inner suburbs.").

²²¹ See JEFFERSON R. COWIE, JOSEPH HEATHCOTT & BARRY BLUESTONE, BEYOND THE RUINS: THE MEANINGS OF DEINDUSTRIALIZATION 44 (2003) ("[F]lexibility of capital takes its toll in

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consummate Rust Belt city.²²² Years of industrial production contaminated many properties.²²³ Changes in the global economy led to companies going out of business or reducing their production and workforce.²²⁴ Former employees of these businesses left—moving to the suburbs or leaving the area entirely—and Detroit's tax revenue declined.²²⁵ Outside the Rust Belt, legislation has decreased the amount of revenue generated by property taxes.

California cities are among a class of localities that seek revenue for different reasons. Interest in capturing tax revenue is pronounced in California because the passage of Proposition 13 reduced property-tax revenue significantly.²²⁶ Proposition 13 was a ballot initiative that amended California's Constitution, placing limits on property taxes and their rate of growth.²²⁷ Before Proposition 13, property taxes were the primary source of revenue for cities and counties.²²⁸ Proposition 13 left a

plant closures, unemployment, and dislocation, leaving communities with withering infrastructures and bereft of tax revenues."); David Wilson & Jared Wouters, *Spatiality And Growth Discourse: The Restructuring Of America's Rust Belt Cities*, 25 J. URB. AFF. 123, 123, 136 (2003) (growth discourse persuasively defines a common set of "villains" and a common set of "victims" that include the "urban tax base."); *see generally* BARRY BLUESTONE & BENNETT HARRISON, *THE DEINDUSTRIALIZATION OF AMERICA: PLANT CLOSINGS, COMMUNITY ABANDONMENT, AND THE DISMANTLING OF BASIC INDUSTRY* (1982). *But see* Michael L. Wachter, *The Deindustrialization of America: Plant Closings, Community Abandonment, and the Dismantling of Basic Industry* by Barry Bluestone & Bennett Harrison, 22 J. ECON. LITERATURE 136-138 (1984) (book review arguing against the authors' conclusions, but not their empirical account of the decline in the Rust Belt).

²²² Wilson & Wouters, *supra* note 221, at 124-126; *see also* ELISE M. BRIGHT, *REVIVING AMERICA'S FORGOTTEN NEIGHBORHOODS: AN INVESTIGATION OF INNER CITY REVITALIZATION EFFORTS* 111 (2001) ("Only Detroit and Newark, New Jersey, experienced greater population losses [than Pittsburgh].").

²²³ "Detroit is particularly devastated by large tracts of abandoned land, some said to resemble a war zone." MARQUITA K. HILL, *UNDERSTANDING ENVIRONMENTAL POLLUTION: A PRIMER* 293 (2d ed. 2004).

²²⁴ *See* ANDERSON, *supra* note 220, at 157.

²²⁵ *Id.*

²²⁶ California Proposition 13 (1978), http://en.wikipedia.org/wiki/Proposition_13 (last visited Nov. 27, 2006) ("Proposition 13, officially titled the 'People's Initiative to Limit Property Taxation,' was a ballot initiative to amend the constitution of the state of California." Eventually, the Court found the initiative constitutional in *Nordlinger v. Hahn*, 505 U.S. 1 (1992). "Proposition 13 is embodied in Article 13A of the California Constitution." Its passage resulted in a cap on "property tax rates in the state, reducing them by an average of 57%." Passage of the initiative led to a "'taxpayer revolt' throughout the country.").

²²⁷ *Id.*

²²⁸ Jennifer Ehn, *Report: Proposition 13 at Twenty-Five*, CAL. INITIATIVE REV. (2004); *see also* Andrew Schouten, *Review of Selected 2007 California Legislation: Health and Safety: Clear as Mud: Chapter 98 and California's Community Redevelopment Law*, 38 MCGEORGE L. REV. 216, 222 (2007) ("Because property taxes provide funding for the majority of local government activities, Proposition 13 effectively reduced local governments' . . . tax revenues by nearly sixty percent."); California Proposition 13 (1978), http://en.wikipedia.org/wiki/Proposition_13 (last visited Mar. 25, 2007).

continuing need for local jurisdictions to increase their tax base and generate revenue through new development.²²⁹ The costs to a municipality of providing brownfield incentives through redevelopment agencies can be slight when compared to the potential increases in tax revenue.²³⁰

iii. *Municipal Value Added: Incentives and Eminent Domain*

Municipalities use local incentives to attract brownfield cleanup and redevelopment.²³¹ Local incentives take a number of forms and include property-tax forgiveness, tax-increment financing, and development bonds.²³² Tax incentives are the most popular, and tax-increment financing is widely used.²³³ Using tax-increment financing, "the locality freezes the taxes at a site's pre-development levels and then uses the expected post-development increases in taxes as a revenue stream to finance a bond or loan, which then pays for" upfront costs, such as infrastructure.²³⁴ Federal law also includes a tax incentive allowing a taxpayer to fully deduct the costs of an environmental cleanup in the year they are incurred rather than spreading them over a period of years.²³⁵

²²⁹ Ehn, *supra* note 228, at 222.

²³⁰ Cities use business improvement districts. "Rather than absorb the costs of an improvement in the municipal budget, the taxing authority assesses all of the properties that directly benefit for their share of the total obligation. Those who benefit pay all the costs; those who do not benefit do not pay." Lawrence O. Houstoun, Jr., *Knowledge Exchange: Hot Topics: Business Improvement Districts and Urban Entertainment and Cultural Centers*, AM. PLAN. ASS'N (1999), <http://www.planning.org/hottopics/bid.htm>. *But see* KRIS WERNSTEDT, LAUREN HEBERLE, ANNA ALBERINI, & PETER MEYER, THE BROWNFIELDS PHENOMENON: MUCH ADO ABOUT SOMETHING OR THE TIMING OF THE SHREWD? DISCUSSION PAPER 04-46 at 10-11 (Resources for the Future 2004) (noting economic benefits of brownfield development appear as important as environmental benefits and that public ownership of a site may not help attract developers), available at <http://www.rff.org/documents/RFF-DP-04-46.pdf>.

²³¹ Gary Sands, Laura A. Reese & Heather L. Khan, *Implementing Tax Abatements in Michigan: A Study of Best Practices*, 20 ECON. DEV. Q. 44, 44 (2006) (much written "on the use of tax incentives as economic development tools In part, this is because of their widespread use." Noting considerable controversy about their effects and that they are often granted with little consideration of costs and benefits); *see generally* Robert W. Wassmer & John E. Anderson, Bidding for Business: New Evidence on the Effect of Locally Offered Economic Development Incentives in a Metropolitan Area, 15 ECONOMIC DEVELOPMENT QUARTERLY 132, 132 (2001) (looking at local incentives (not just tax incentives) to alter business location decisions).

²³² Wasserman & Anderson, *supra* note 231, at 132.

²³³ *Id.*

²³⁴ Evans Paull, *Using Tax Increment Financing for Brownfields Redevelopment*, NORTHEAST-MIDWEST ECON. REV. 1 (Fall-Winter 2006-07), available at <http://www.nemw.org/ER%20W07-TIF.pdf>.

²³⁵ Taxpayer Relief Act of 1997, I.R.C. § 198(a), 26 U.S.C. § 198(a), Pub. L. No. 105-34, 111 Stat. 788 (1997), amended by Pub. L. No. 106-170, Title V, §§ 511, 532(c)(2)(A), 113 Stat. 1924,

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Sites on the National Priorities List do not qualify for the federal brownfields tax credit, however, a key distinction from Superfund properties.²³⁶

Redevelopment agencies can add value to projects using eminent domain.²³⁷ Whether a brownfield is lying idle because of an unwilling seller, lack of financing, or a cautious community of developers, a city can use eminent domain to correct for these market failures—a traditional use of the eminent domain power.²³⁸ However, use of eminent domain by redevelopment agencies has become politically sensitive.²³⁹ The 2005 Supreme Court ruling in *Kelo v. City of New London* raised concern over property rights and was followed by a string of property-rights ballot initiatives indicating national concern over the use of

1930 (1999); Pub. L. No. 106-554, § 1(a)(7) (Title I, § 162(a), (b)), 114 Stat. 2763, 2763A-625 (2000); Pub. L. No. 108-311, Title III, § 308(a), 118 Stat. 1179 (2004) (now requiring that properties meet land-use and contamination qualifications, but including a geographic limitation until Dec. 21, 2000); U.S. ENVTL. PROT. AGENCY, BROWNFIELDS TAX INCENTIVE - FREQUENTLY ASKED QUESTIONS (2007), http://www.epa.gov/brownfields/tax_incentive_faq.htm (Brownfield Tax Incentive amended to run through Dec. 31, 2007, at the time of this writing).

²³⁶ U.S. ENVTL. PROT. AGENCY, HOW TO FIND OUT WHETHER A PROPERTY IS ELIGIBLE FOR THE BROWNFIELD TAX INCENTIVE (1998), <http://www.epa.gov/swerosps/bf/bftaxinc.htm>. *But see* Hugh S. Gorman, *Brownfields in Historical Context*, 5 ENVTL. PRAC. 21, 24 (2003) (in the 1990s, "[t]he USEPA, with over a decade of Superfund experience under its belt, moved to investigate, remediate, and delist numerous sites that had been identified as contaminated." Delisting in the context of removing sites from the CERCLIS database, a precursor to the National Priorities List); *see generally* Donald Crocker & Gerard D'Souza, *Spatial Characteristics of Delisted CERCLIS Sites: An Application and Some Policy Implications for Brownfield Redevelopment*, 4 ENVTL. PRAC. 19 (2002).

²³⁷ Shawna M. Bligh, *Eminent Domain is an Essential Development Tool to Acquire Contaminated Sites*, ST. LOUIS DAILY RECORD & ST. LOUIS COUNTIAN, May 19, 2006; *see also* Hope Whitney, *Cities and Superfund: Encouraging Brownfield Redevelopment*, 30 ECOLOGY L.Q. 59, n.55 (2003) (citing Michael E. Porter, *The Competitive Advantage of the Inner City*, HARV. BUS. REV. 15, 65 (1995)) (listing inner cities' strategic location as economic advantage and for a discussion of why assembling small parcels into meaningful sites is difficult in inner cities. Using the power of eminent domain, cities can overcome this problem). *But see* Michael Stokes, *Valuing Contaminated Property in Eminent Domain: A Critical Look at Some Recent Developments*, 19 TUL. ENVTL. L.J. 221 (2006) (valuing contaminated property in eminent domain is problematic).

²³⁸ Whitney, *supra* note 237, at 69; *City of Emeryville v. Elementis Pigments, Inc.*, No. C 99-03719 WHA, 2001 U.S. Dist. LEXIS 4712, at *34 (N.D. Cal. Mar. 7, 2001) (redemption agencies can sue for recovery under Polanco when they would be barred under CERCLA); *see also* *Redevelopment Agency v. Salvation Army*, 127 Cal. Rptr. 2d 30, 39 (Cal. Ct. App. 2002) (redemption agencies can recover cleanup expenses under the Polanco Act); *Fireman's Fund Ins. Co. v. Lodi*, 302 F.3d 928, 943 (9th Cir. 2002) (upholding municipal ordinance permitting investigation and remediation of hazardous waste).

²³⁹ JULIA VITULLO-MARTIN, EMINENT DOMAIN: THE GOOD, THE BAD, AND THE UGLY (Manhattan Institute 2006), http://www.manhattan-institute.org/email/crd_newsletter05-06.html (proposing that eminent domain and redevelopment, "[u]nder increasingly expansive court rulings . . . has grown into a largely unchecked power, by which government can take almost any property, for almost any purpose.").

eminent domain by redevelopment agencies.²⁴⁰

Kelo involved the condemnation by the City of New London, Connecticut, of privately owned property as part of a redevelopment plan.²⁴¹ The Supreme Court held, in a 5-4 decision, that the general benefits a community enjoyed from economic growth qualified such redevelopment plans as a permissible “public use” under the Takings Clause of the Fifth Amendment.²⁴² The majority opinion reasoned it was appropriate to defer to the city’s decision that the plan had a public purpose.²⁴³

The decision was subject to wide criticism.²⁴⁴ Criticism from

²⁴⁰ See Les Christie, *Kelo’s revenge: Voters restrict eminent domain*, CNNMONEY.COM, Nov. 8, 2006, available at http://money.cnn.com/2006/11/08/real_estate/kelos_revenge/; National Conference of State Legislatures, Property Rights Issues on the 2006 Ballot, http://www.ncsl.org/statevote/prop_rights_06.htm (last visited Nov. 27 2006) (ten of twelve states with anti-Kelo measures on the ballot passed them during the 2006 elections); Ilya Somin, *Ten states pass anti-Kelo referendum initiatives*, The Volokh Conspiracy, Nov. 8, 2006, http://www.volokh.com/archives/archive_2006_11_05-2006_11_11.shtml#1162996559 (last visited Aug. 6, 2007) (arguing referendums passed where legislatively drafted amendments did not because legislators compromise or feign limits on eminent domain).

²⁴¹ *Kelo v. City of New London*, 545 U.S. 469, 479 (2005) (bought from willing purchasers and used eminent domain to get the rest of the property in the development, which gave rise to this case) [hereinafter *Kelo*]. For discussion of *Kelo*, see Abraham Bell & Gideon Parchomovsky, *Essay: The Uselessness Of Public Use*, 106 COLUM. L. REV. 1412, 1412 (2006) (arguing that the criticisms of *Kelo* are ill conceived and misguided.); Marc B. Mihaly, *Living in the Past: The Kelo Court and Public-Private Economic Redevelopment*, 34 ECOLOGY L.Q. 1, 3 (2007) (*Kelo* “has engendered a breadth and intensity of public reaction unique among the Supreme Court’s land use decisions.”); Corinne Calfee, *Kelo v. City of New London: The More Things Stay the Same, the More They Change*, 33 ECOLOGY L.Q. 545, 572 (2006) (holding was appropriate—governments’ at all levels need the flexibility to exercise the power of eminent domain.); Orlando E. Delogu, *Kelo v. City Of New London—Wrongly Decided And A Missed Opportunity For Principled Line Drawing With Respect To Eminent Domain Takings*, 58 ME. L. REV. 17, 18 (2006) (“No eminent domain taking case in the last twenty-five years has excited the level of interest, attention, and debate as has *Kelo v. City of New London*.”).

²⁴² *Kelo*, 545 U.S. at 489-90.

²⁴³ *Id.* at 487-88.

²⁴⁴ Jonathan Michels, *Kelo v. City of New London: Is the Response to Curb the Effect of the Supreme Court Decision Going Too Far?*, 37 SETON HALL L. REV. 527, 527 (2007) (“The decision has prompted significant outcry and response from the federal government, state legislatures, and grassroots campaigns by citizens of a number of states.”); see also David L. Breau, *A New Take On Public Use: Were Kelo And Lingle Nonjusticiable?* 55 DUKE L.J. 835, 835 n.3 (2006):

See, e.g., Jeff Jacoby, *Editorial, Eminent Injustice in New London*, BOSTON GLOBE, June 26, 2005, at D11 (“These five justices, . . . I hope someone looks at their property and says, ‘You know, we could put that land to better use—why don’t we get the town to take it from them by eminent domain.’ Then maybe they would understand what they’re putting my father through.” (quoting Mike Cristofaro, son of one of the *Kelo* plaintiffs)); T.R. Reid, *Missouri Condemnation No Longer So Imminent; Supreme Court Ruling Ignites Political Backlash*, WASH. POST, Sep. 6, 2005, at A2 (“[A]ll over the country, [*Kelo*] has sparked a furious reaction, with politicians of both parties proposing new legislation that would sharply limit the kind of seizure the . . . decision validated.”); Benjamin Weyl, *Activist Tries a Grab for*

property rights groups centered around the outcome as a gross violation of property rights, violating the Fifth Amendment prohibition against government takings.²⁴⁵ Much concern related to the city's use of eminent domain for a private development because the land in *Kelo* substantially benefited a large private pharmaceutical company planning to build a new research facility.²⁴⁶

Given this public concern, condemnation of contaminated properties using eminent domain provides further justification for use of the eminent domain power in redevelopment; using eminent domain to clean polluted properties provides the additional "public use" of protecting the public health.²⁴⁷ Further, as the municipal tools for brownfield remediation and redevelopment have evolved to effectively address liability and investment risk, the decision about whether a project should go forward, like the use of redevelopment and eminent domain, becomes increasingly political.²⁴⁸

Jurist's Property; A Foe of the High Court's Ruling Wants to Apply It to Seize David H. Souter's Home, L.A. TIMES, June 30, 2005, at A10 (describing an activist's apparently serious suggestion that the city of Weare, New Hampshire, use eminent domain to acquire Justice Souter's vacation home in order to build a new hotel).

²⁴⁵ See *supra* note 244.

²⁴⁶ *Kelo*, 545 U.S. at 488-89 ("we decline to second-guess the City's considered judgments about the efficacy of its development plan, we also decline to second-guess the City's determinations as to what lands it needs to acquire in order to effectuate the project."). "In February 1998, Pfizer Inc., the pharmaceuticals manufacturer, announced that it would build a global research facility near the Fort Trumbull neighborhood. Two months later, New London's city council gave initial approval for the New London Development Corporation (NLDC) to prepare the development plan." *Id.* at 495; see also *Kelo*, 545 U.S. at 506 (Thomas, J., dissenting) (a taking "which is also suspiciously agreeable to the Pfizer Corporation. . .").

²⁴⁷ Vicki E. Land & Andrew J. Sokolowski, *Closing Argument: The Overreaction to the Kelo Decision*, 28 L.A. LAW. 52, 52 (2006) ("The *Kelo* decision will have little or no effect in California because of statutes already in place here, but the impassioned legislative reaction to *Kelo* may threaten the ability of California redevelopment agencies to eliminate urban blight"). *But see* David Schultz, *What's Yours Can be Mine: Are There Any Private Takings After Kelo v. City of New London?*, 24 UCLA J. ENVTL. L. & POL'Y 195, 232 (2006) (the decision does not mean that the public use doctrine is dead, finding the *Kelo* condemnation furthered a private interest and did not constitute a valid public use). Proposing that cleaning contaminated property provides a "public use" justification for the use of eminent domain, see Colin M. McNiece, *NOTE AND COMMENT: A Public Use for the Dirty Side of Economic Development: Finding Common Ground Between Kelo and Hathcock for Collateral Takings in Brownfield Redevelopment*, 12 ROGER WILLIAMS U. L. REV. 229, 231 (2006). *But see* Jonathan Michels, *COMMENT: Kelo v. City of New London: Is the Response to Curb the Effect of the Supreme Court Decision Going Too Far?*, 37 SETON HALL L. REV. 527, 527 (2007) (expressing concern states will "craft remedies so broad that they will limit the ability of government to utilize eminent domain power for necessary future projects that would pass pre-*Kelo* constitutional muster.").

²⁴⁸ Marie Howland, *Private Initiative and Public Responsibility for the Redevelopment of Industrial Brownfields: Three Baltimore Case Studies*, 17 ECON. DEV. Q. 367, 377 (2003) ("Market, environmental, regulatory, administrative, and political conditions and risks all play a role in

iv. *Politics and Brownfield Development*

The elected officials closest to brownfield development decisions are in municipal government.²⁴⁹ Residents, activists, and candidates are increasingly advocating for environmental justice as part of the electoral process.²⁵⁰ In 2006, Richmond, California, became the country's largest city to elect a Green Party mayor, selecting Gayle McLaughlin in a close election.²⁵¹ As a city councilmember, McLaughlin was a key advocate for greater oversight of Campus Bay, was instrumental in having the DTSC take oversight of upland portions of the cleanup from RWQCB, and now sits on the Community Advisory Group for Campus Bay and the UC Field Station.²⁵²

The election of a Green Party candidate in Richmond was notable

brownfield redevelopment outcomes."). "[S]ites near residential communities face greater political barriers and risks.") *Id.* at 379. In the United Kingdom, brownfield targets decrease the political pressure developers can put on decisionmakers. Mike Raco & Steven Henderson, *Sustainable urban planning and the brownfield development process in the United Kingdom: Lessons from the Thames Gateway*, 11 LOCAL ENV'T. 499, 504, 508-09 (2006) (also noting prioritizing brownfield regeneration in the UK "is a reflection of the wider meta-narratives of an urban renaissance sustainability and social exclusion that now permeate development agendas. It is also a consequence of the substantial symbolic and political capital that can be gained from the process of physical construction on formerly derelict sites.).

²⁴⁹ JAMES C. CLINGERMAYER & RICHARD C. FEIOCK, INSTITUTIONAL CONSTRAINTS AND POLICY CHOICE: AN EXPLORATION OF LOCAL GOVERNANCE 9 (2001) (proposing "one of the primary determinants of a city's decision to pursue a specific [land use] policy strategy is the political institutional environment of that city.").

²⁵⁰ Richard Toshiyuki Drury, *Rousing the Restless Majority: The Need for a Blue-Green-Brown Alliance*, 19 J. ENVTL. L. & LITIG. 5, 5 (2004):

[T]he bipartisan national consensus that led to our strong system of environmental protections has fallen apart. To confront this challenge successfully, the environmental movement must . . . return to direct grassroots organizing. The logical place to begin is in the communities most adversely affected by environmental hazards - communities of color and labor.

See also LUKE W. COLE, SHEILA R. FOSTER, FROM THE GROUND UP: ENVIRONMENTAL RACISM AND THE RISE OF THE ENVIRONMENTAL JUSTICE MOVEMENT 13 (2001) ("Understanding the structure of environmental decision making, particularly on the state and local levels, where these struggles occur, is crucial to understanding the motivation, stages, and strategies of grassroots activism."); Manuel Pastor, Jr., Jim Sadd, & John Hipp, *Which Came First? Toxic Facilities, Minority Move-In, and Environmental Justice*, 23 J. URB. AFF. 1, 1 (2001) ("In recent years, policy makers have become increasingly responsive to the perception of racially inequitable exposure to various environmental hazards concerns."); *see generally* CLIFFORD RECHTSCHAFFEN & EILEEN P. GAUNA, ENVIRONMENTAL JUSTICE: LAW, POLICY, AND REGULATION (2002); CLIFFORD RECHTSCHAFFEN, REINVENTING ENVIRONMENTAL ENFORCEMENT & THE STATE/FEDERAL RELATIONSHIP (Environmental Law Institute 2003).

²⁵¹ Jason B. Johnson, *RICHMOND; Polling stations move to be probe; NAACP says action may have shut out some minority voters*, S.F. CHRONICLE, Nov. 23, 2006, at B2.

²⁵² <http://www.gaylemlaughlin.net/about.htm> (last visited Mar. 21, 2006).

because the Green Party's traditional base has been among mostly white environmentalists, and approximately three fourths of Richmond's 103,000 residents are African-American and other minorities.²⁵³ The campaign emphasized the candidate's activism and tied environmentalism to violent crime, historically one of Richmond's greatest challenges.²⁵⁴ This was a point that McLaughlin articulated in her 2007 Mayoral Address:

And while we address street violence, we must be clear that any definition of violence foisted upon our community must also include the toxic pollution and chemical industrial legacy that our population is exposed to more than other communities. This is also a type of violence to our health; a burden on Richmond's children and future generations. With that in mind, we must address the environment.²⁵⁵

Mayor McLaughlin's activism in opposition to Campus Bay was a small part of her victory, and her candidacy likely benefited from two of her African-American opponents splitting the votes of that constituency.²⁵⁶ Still, the Mayor's advocacy for environmental justice is a source of hope and may benefit Richmond residents. At the same time, toxic cleanups have real non-political effects that are difficult to address politically.²⁵⁷ Toxic cleanups require prolonged oversight and expertise

²⁵³ Carl T. Hall, *RICHMOND; Mayor concedes race -- city largest in nation with Green leadership*, S.F. CHRONICLE, Nov. 22, 2006, at B7.

²⁵⁴ Friends of Richmond's Mayor Gale McLaughlin, <http://www.gaylemclaughlin.net/> (last visited Mar. 23, 2007).

²⁵⁵ See, e.g., Gayle's 2007 Mayoral Address, <http://www.gaylemclaughlin.net/speech01-2007.htm> (last visited July 29, 2007).

²⁵⁶ Tim Holt, *RECLAIMING RICHMOND: The city's Green Party Mayor Gayle McLaughlin and a cadre of residents fight to take back the shoreline for public use*, S.F. CHRONICLE, July 22, 2007, at CM-10 ("The candidacy of McLaughlin, who moved to Richmond seven years ago, no doubt benefited from the fact that her two principal opponents were African Americans who split the vote of that constituency.").

²⁵⁷ See Dorothy M. Daley & David F. Layton, *Policy Implementation and the Environmental Protection Agency: What Factors Influence Remediation at Superfund Sites?*, 32 POL'Y STUD. J. 375, 378-79, 389 (2004) (testing the hypothesis that local political involvement increases the likelihood a Superfund site is completely cleaned. Local group involvement, such as Community Advisory Group acting with or without a Technical Assistance Grant, decreases the likelihood a Superfund site will be remediated, but political oversight does—"[s]ites in congressional districts where legislators also serve on Superfund oversight committees are important predictors of remedial progress."); see also Robert C. Lowry, *All hazardous waste politics is local: grass-roots advocacy and public participation in siting and cleanup decisions*, 26 POL'Y STUD. J. 748, 748 (1998):

The American system of federalism and interest group pluralism often creates difficulties when it comes to local implementation of national environmental policies. Regulators must operate within the context of multiple political jurisdictions and are subject to public criticism, political end runs, and litigation at any one of many different points (citation

of a kind usually left to administrative agencies and experts outside the political process.²⁵⁸

For a cleanup such as Campus Bay to successfully address environmental justice, it must be effective, raising sufficient capital and mitigating uncertainty such that the project goes forward, while providing access to information and experts to interpret and monitor the information.²⁵⁹ After confrontations, Campus Bay's developers (Simeon and Cherokee) encouraged the formation of a Community Advisory Group and paid for a toxicologist so that the group could effectively interpret and comment on technical documents.²⁶⁰ The Campus Bay Community Advisory Group is an example of citizen responses to increased information.²⁶¹ On the other hand, greater information alone is insufficient.

D. CITIES CAN LEAD EFFECTIVELY, BUT SHOULD THEY?

Municipalities can combine existing incentives and liability protections, under state and federal law, in order to clean and redevelop

omitted). Incorporating the concerns of private interests into policy implementation is made more difficult by the fact that there are no "official" representatives for private interests. Rather, private individuals and institutions may form any number of combinations that compete with each other for influence.

See also Dianne Rahm, *Controversial Cleanup: Superfund and the Implementation of U.S. Hazardous Waste Policy*, 26 *Pol'y Stud. J.* Vol. 719, 719 (1998) ("While there was and is widespread public and political support for cleaning up the nation's hazardous waste sites, Superfund has been fraught with dissension and controversy from its inception.").

²⁵⁸ James T. Hamilton & W. Kip Viscusi, *How Costly Is "Clean"? An Analysis of the Benefits and Costs of Superfund Site Remediations*, 18 *J. POL'Y ANALYSIS & MGMT.* 2, 2, 21-24 (1999) (investigating the [cost] inefficiency of U.S. EPA Superfund cleanups. U.S. EPA has more site specific information and can "take actions difficult for Congress to monitor.").

²⁵⁹ CHARLES BARTSCH, *COMMUNITY INVOLVEMENT IN BROWNFIELD REDEVELOPMENT* 10 (Barbara Wells ed. Northeast-Midwest Institute 2003) ("To understand and comment on brownfield projects, communities require reliable and usable information on the site itself, cleanup technologies, public- health concerns, economic and market conditions, and other issues. The content and credibility of this information. . ." is important.); *see generally* Wendy E. Wagner, *Commons Ignorance: The Failure Of Environmental Law To Produce Needed Information On Health And The Environment*, 53 *DUKE L.J.* 1619, 1624-25 (2004):

[T]he failure of the environmental laws to require the production of basic information about the harms caused by polluting activities and hazardous products. Regulated actors, despite creating most of the need for this information, are excused under most environmental laws from providing any more than a partial inventory of their activities and are not required to track the resulting impact on public health and the environment.

²⁶⁰ Richard Brenneman, *Attorney Slams UC Response to Richmond Toxic Dump*, *BERKELEY DAILY PLANET* (July 17, 2007) (including a CAG history).

²⁶¹ *Id.*

challenging brownfields.²⁶² Liability can be addressed with settlements and immunity to the extent provided by state law.²⁶³ Municipalities can address the risk that development will not meet investment-backed expectations by using local incentives.²⁶⁴

Liability and investment risks need not limit brownfield development, given a city's ability to counteract these risks. Rather, whether a project should go forward becomes a political question about how much the city should spend and who should benefit.²⁶⁵ Municipalities should undertake the significant risk and expenditure²⁶⁶ of providing liability protection and economic benefits where the potential rewards of brownfield development are great or otherwise difficult to obtain. Municipally led brownfield remediation and redevelopment make sense as part of multi-faceted regional development plans.²⁶⁷ Such an

²⁶² See Whitney, *supra* note 237, at 111-12 (municipally led cleanups in CA under the Polanco Act are expensive and difficult, but possible, while arguing cities should be treated like states as not private PRPs); Christopher De Sousa, *Brownfield Redevelopment versus Greenfield Development: A Private Sector Perspective on the Costs and Risks Associated with Brownfield Redevelopment in the Greater Toronto Area*, 43 J. ENVTL. PLAN. & MGMT. 831, 850-51 (2000) (finding the economic obstacles to residential redevelopment in central city and inner suburbs of Toronto are not as serious as Canadian and U.S. literature suggest given the growing popularity of living in urban areas and the increase in the value of residential real-estate); Michael R. Greenberg & Justin Hollander, *The Environmental Protection Agency's Brownfields Pilot Program*, 96 AM. J. PUB. HEALTH 277, 281 (2006) (characterizing the federal Brownfields Pilot Program as, overall, a successful environmental innovation); see generally Faith R. Dylewski, *Comment: Ohio's Brownfield Problem and Possible Solutions: What is Required for a Successful Brownfield Initiative?* 35 AKRON L. REV. 81 (2001); Eisen, *supra* note 27, n.11 (states are experimenting with policies).

²⁶³ For example, brownfields in California can be cleaned and redeveloped under Polanco in order to mitigate investment and liability risk. Polanco is preferable to other California state-law methods because it is available immediately, has survived appellate challenges, and can serve as a catalyst for cleanup even when properties are not redeveloped under its auspices. Whitney, *supra* note 237, at 78; see also *supra* Part III.C.

²⁶⁴ See *supra* Part III.C.ii, iii (to decrease the risk of projects and eminent domain to increase the value of projects).

²⁶⁵ Frona M. Powell, *Amending CERCLA to Encourage the Redevelopment of Brownfields: Issues, Concerns, and Recommendations*, 53 J. URB. & CONTEMP. L. 113, 125, n.81 (1998) (can increase economic value of properties and improve the environment, but "brownfield redevelopment must not compromise the environmental health and the well-being of local residents. Environmental justice concerns are important because brownfields are most often found in inner-cities and economically depressed neighborhoods." (citing Georgette C. Poindexter, *Separate and Unequal: A Comment on the Urban Development Aspect of Brownfields Programs*, 24 FORDHAM URB. L.J. 1, 11 (1996)). But see Paul D. Flynn, *Note: Finding Environmental Justice Amidst Brownfield Redevelopment*, 19 VA. ENVTL. L.J. 463 (2000) (arguing access to more information alone will not address environmental justice concerns as they relate to brownfields).

²⁶⁶ In forgone earnings or actual spending.

²⁶⁷ See BROOKINGS INST. METRO. POLICY PROGRAM, *RESTORING PROSPERITY: THE STATE ROLE IN REVITALIZING AMERICA'S OLDER INDUSTRIAL CITIES* 53 (2007) (state focus on large-scale redevelopment of underused sites should include:

approach would treat cleanup and development as part of a regional development program, instead of piecemeal, site-specific development that is the norm in state voluntary cleanup programs.²⁶⁸ Regional development worth considerable risk could include “really smart growth”²⁶⁹ or clustered brownfield development programs.²⁷⁰ Brownfield redevelopment should be demanded by the affected communities.²⁷¹ To these ends, a city must be capable of incorporating citizen input and overseeing the cleanup—and the city needs to be able to say no to the development if that response is demanded by affected communities.²⁷²

(1) reviewing and reforming tax lien foreclosure laws to expedite the acquisition and disposition of delinquent properties, which under current systems can sit idle for years before the city can take ownership; (2) developing new tools to promote brownfields development, such as an environmental insurance program (like Massachusetts’), or an environmental remediation tax-increment-financing (TIF) program; (3) enabling the establishment of local land banks—as Michigan has done—that allow localities to gain clear title to vacant properties and assemble them for future use; and (4) continuing to allow the limited and appropriate use of eminent domain to redevelop blighted urban areas.

See also Paul Stanton Kibel, *Essay: The Urban Nexus: Open Space, Brownfields, and Justice*, 25 B.C. ENVTL. AFF. L. REV. 589, 616-17 (1998) (noting the acute inadequacy of metropolitan governance of land-use, thwarting sustainable brownfield development and suggesting the federal Small Business Administration (SBA) and “Restoration Advisory Boards (RABs), created to help deal with environmental cleanup issues relating to military base closures,” as models for “remediation reform with environmental justice.”).

²⁶⁸ Eisen, *supra* note 27, at 1926 n.679.

²⁶⁹ James A. Kushner, *Brownfield Redevelopment Strategies in the United States*, 22 GA. ST. U.L. REV. 857, 865 (2006).

²⁷⁰ See D. Evan van Hook, Judith Auer Shaw & Kenneth J. Kloo, *Colloquium Article: The Challenge Of Brownfield Clusters: Implementing A Multi-Site Approach For Brownfield Remediation And Reuse* 12 N.Y.U. ENVTL. L.J. 111, 115 (2003) (arguing for a clustered approach to revitalizing areas with multiple brownfields); D. Evan van Hook, *Symposium: Earth, Wind and Fire: Brownfields In the Coming Millennium: Article: Area-Wide Brownfields Planning, Remediation and Development*, 11 FORDHAM ENVTL. LAW J. 743, 745 (2000) (arguing for area wide development in order to address the unique remediation problems stalling redevelopment of the “second tier” of brownfields); JOEL WIMBISCUS, REMEDIATING THE BROWNFIELD BROWNOUT: WHY BROWNFIELD LEGISLATION FALLS SHORT AND HOW A CLUSTERED APPROACH CAN HELP 24 (2005), <http://www.abanet.org/environ/committees/lawstudents/pdf/Wimbiscus.pdf> (ABA writing competition winner arguing for clustered rather than piecemeal approaches to brownfield remediation).

²⁷¹ Eisen, *supra* note 27, at 887 (voluntary cleanup programs, burdening affected community, troublesome unless the “affected community voluntarily approves of” the development plan).

²⁷² Articles present a range of views on the competence of local government. See, e.g., Wernstedt & Hersh, *supra* note 150, at 173 (will see how best to encourage broad enfranchisement in order that the public can weigh economic development and site remediation efforts over the long term); Michael Allan Wolf, *Symposium of the Advent of Local Environmental Law: Article: Earning Deference: Reflections on the Merger of Environmental and Land-Use Law*, 20 PACE ENVTL. L. REV. 253, 253 (2002) (“[L]ocal government officials - who are often (though, certainly, not always justifiably) viewed as occupying the bottom rungs of the ladder of governmental competence,” and should be careful in acting when they may not have a defense given courts give less deference to legislative decisionmaking); Miriam Seifter, *COMMENT: Rent-a-Regulator: Design and Innovation*

Professor Joel Eisen put it succinctly when he wrote that “a brownfield redevelopment project [is] morally troublesome unless the affected community voluntarily approves of it.”²⁷³ However, the state voluntary cleanup programs give “communities little ability to do this, putting brownfield developers on a collision course with the environmental justice movement.”²⁷⁴

E. ENVIRONMENTAL JUSTICE AND THE EFFICACY OF MUNICIPAL BROWNFIELD DEVELOPMENT

Elected officials and citizens need to address environmental justice concerns.²⁷⁵ Planning and redevelopment decisionmaking procedures provide an established, if imperfect, means of addressing environmental inequalities.²⁷⁶ The U.S. EPA defines environmental justice as “the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.”²⁷⁷ Because brownfield properties are primarily located in

in *Privatized Governmental Decisionmaking*, 33 *ECOLOGY L.Q.* 1091, 1098 (2006) (analyzing privatization of regulation of brownfields, notes audits of a state program reveal “widespread ‘regulatory slippage’ -- a failure to take regulatory action or a decision to take action less rigorous than promulgated requirements require,” though not necessarily advocating a return to public administration). *But see* Richard L. Revesz, *Article: Federalism and Environmental Regulation: A Public Choice Analysis*, 115 *HARV. L. REV.* 553, 641 (2001) (rejecting, based on theoretical and empirical analyses, the “general argument that public choice problems at the state level lead to systematic underregulation absent federal intervention.”).

²⁷³ Eisen, *supra* note 27, at 887 (citation omitted).

²⁷⁴ *Id.* (citations omitted).

²⁷⁵ Jennifer Felten, *Brownfield Redevelopment 1995-2005: An Environmental Justice Success Story?*, 40 *REAL PROP. PROB. & TR. J.* 679, 685-86 (2003).

²⁷⁶ CHARLES BARTSCH, *COMMUNITY INVOLVEMENT IN BROWNFIELD REDEVELOPMENT*, *supra* note 259, at 1:

Community participation and stakeholder involvement play an essential role in successful brownfield development, as dozens of success stories attest. Yet historically, community participation in federally influenced redevelopment activities has been adversarial. In many quarters, community participation has an obstructionist reputation, viewed as a process that will slow down or derail a project rather than enhance its likelihood of success. In fact, a meaningful, inclusive process of stakeholder involvement has proven to be an important factor in the successful redevelopment and reuse of brownfield sites.

²⁷⁷ Felten, *supra* note 275, at 681, 681 n.6, n.7 (citing U.S. Env'tl. Prot. Agency, *Environmental Justice*, <http://www.epa.gov/compliance/environmentaljustice/index.html> (last visited Jan. 19, 2006) and NAT'L ENVTL. JUSTICE ADVISORY COUNCIL WASTE AND FACILITY SITING SUBCOMM., *ENVTL. JUSTICE, URBAN REVITALIZATION, AND BROWNFIELDS: THE SEARCH FOR AUTHENTIC SIGNS OF HOPE* at es-ii (1996), available at http://www.epa.gov/Compliance/resources/publications/ej/public_dialogue_brownfields_1296.pdf (last visited Jan. 19, 2006)).

or around "people of color, low-income, [indigenous peoples], and otherwise marginalized communities," both the U.S. EPA and environmental justice activists have put time and effort into finding ways for brownfield redevelopment to positively affect these communities financially and socially.²⁷⁸ Many of these initiatives involve greater community involvement.²⁷⁹ If the City of Richmond had been more involved with the Campus Bay cleanup, it would have triggered state-law requirements for open government²⁸⁰ and notice of hearings.²⁸¹ Further, if the city council had not passed a negative declaration, the developer would have been required to comply with the California Environmental Quality Act (CEQA).²⁸² CEQA documentation would have given residents greater access to information.²⁸³ Anger over the lack of access to information is one of the factors that contributed to stopping the project indefinitely.²⁸⁴ At Campus Bay, the private developer's cleanup

²⁷⁸ *Id.* at 682.

²⁷⁹ *Id.* (citing U.S. Env'tl. Prot. Agency, Environmental Justice, <http://www.epa.gov/compliance/environmentaljustice/index.html> (last visited Jan. 19, 2006)).

²⁸⁰ Richmond's Negative Declaration exempted demolition work from CEQA; *see generally* The California Environmental Quality Act, CAL. PUB. RES. CODE §§ 21000-21177 (Deering 2007); Guidelines for implementation codified in the California Code of Regulations, CAL. CODE REGS. tit. 14, §§ 15000-15387 (Deering 2007); *see also* Cal. Env'tl. Resource Evaluation Sys., California Environmental Quality Act, <http://www.ceres.ca.gov/ceqa/> (last visited July 20, 2007).

²⁸¹ CAL. GOV'T CODE §§ 54950-54963 (Deering 2007) (Brown Act, municipal open government); CAL. GOV'T CODE §§ 11120-11132 (Deering 2007) (Bagley-Keene Open Meeting Act of 2004, state open government); CAL. GOV'T CODE § 6251 (Deering 2007) (California Public Records Act is California's Freedom of Information law, providing a right of access to records in the possession of state and local governments). In *Trancas Property Owners Ass'n v. City of Malibu*, 41 Cal. Rptr. 3d 200 (Cal. Ct. App. 2006), a California court of appeal invalidated the city's closed session land use agreement as "commitments to take or refrain from regulatory actions regarding the zoning" of the development project because its adoption in closed session violated the Brown Act.

²⁸² The California Environmental Quality Act ("CEQA") requires development projects submit documentation of their potential environmental impact. CAL. PUB. RES. CODE § 21002.1 (West 2006) (cited by CEQA, <http://en.wikipedia.org/wiki/CEQA> *see also* <http://www.ceres.ca.gov/ceqa/> (last visited Nov. 27 2006)).

²⁸³ CEQA, and the National Environmental Policy Act on which was modeled, was "conceived as a means to require public agencies to consider and disclose to the public the environmental implications of their actions. Unlike NEPA, CEQA imposes an obligation to implement mitigation measures or project alternatives to mitigate significant adverse environmental effects, if these measures or alternatives are feasible." CEQA "establishes both a procedural obligation to analyze . . . a substantive obligation to mitigate significant impacts." University of California CEQA Handbook, http://www.ucop.edu/facil/pd/CEQA-Handbook/chapter_01/pdf/1.1.pdf (last visited Aug. 6, 2007). The CEQA seeks to accomplish the following five major objectives: (1) Disclose Environmental Impacts; (2) Prevent or Reduce Environmental Damage; (3) Disclose Agency Decisions; (4) Promote Interagency Coordination; and (5) Encourage Public Participation California Integrated Waste Management Board, California Environmental Quality Control Act (CEQA) Toolbox, Purpose of CEQA, <http://www.ciwmb.ca.gov/PermitToolbox/CEQA/Overview/Purpose.htm> (last visited July 20, 2007).

²⁸⁴ Richard Brenneman, *Toxics Panel Asks Water Board to Enforce Ban*, BERKELEY DAILY

plans were approved without community input.²⁸⁵ A legislative hearing was held and upland portions of the site were transferred from RWQCB oversight to DTSC because citizens were concerned that the RWQCB lacked the expertise to manage the cleanup and that the cleanup was insufficient and dangerous.

Municipal leadership of brownfield redevelopment can be effective: properties can be cleaned and reused under existing laws and with existing private and public organizations.²⁸⁶ Municipalities have established procedures for planning and redevelopment decisions incorporating some level of citizen participation, which is governed by existing freedom-of-information laws.²⁸⁷ This helps to allay citizen concerns over redevelopment and decrease investment risk, because projects incorporating citizen views are less likely to be hampered by citizen outrage later in the process.²⁸⁸ Municipalities lack the funds

PLANET, Jan. 6, 2006.

²⁸⁵ Email from Jeffrey Ritterman, Chief, Division of Cardiology, Assistant Chief, Department of Medicine, Kaiser Richmond, to Caron Parker, City of Richmond Planning Department (Monday, May 24, 2004 2:31 PM) "I am appalled at the way the Redevelopment Agency has proceeded with encouraging this plan without coming to the community for input.", available at <http://www.soula.org/zeneca/ritterman.html>; see also Richard Brenneman, *UC's Toxics Decision Impacts Campus Bay Site*, BERKELEY DAILY PLANET, Nov. 19, 2004 ("Developers can opt either for the water board, which has minimal scientific staffing—not even a toxicologist for the last two years—and little opportunity to public input, or the much stricter DTSC. . .").

²⁸⁶ See, e.g., Whitney, *supra* note 237, at 112 (concluding that, "[i]n the absence of federal action, states can play an important role in empowering cities to transform brownfields," and noting California's successful solution—the Polanco Act. However, this was before *Aviall*, which voided recovery under Sec 117, and *Atlantic Research*, which reiterated the availability of recovery under Sec. 107.); see also *United States v. Atl. Research Corp.*, 127 S. Ct. 2331, 2335-39 (2007); *Cooper Industries, Inc. v. Aviall Services, Inc.*, 543 U.S. 157, 160-61 (2004); see generally Powell, *supra* note 265, at 138 (in the context of Superfund cleanups, "[l]ocal governments are often in a better position to encourage the redevelopment of brownfields than either the federal or state governments," because of local knowledge, control of land use, and involvement in reconciliation of project conflicts).

²⁸⁷ See CAL. GOV'T CODE §§ 54950-54963 (Deering 2007) (Brown Act, municipal open government); (CAL. GOV'T CODE §§ 11120-11132 (Deering 2007) (Bagley-Keene Open Meeting Act of 2004, state open government); (CAL. GOV'T CODE § 6251 (Deering 2007) (California Public Records Act is California's Freedom of Information law, providing a right of access to records in the possession of state and local governments). In *Trancas Property Owners Ass'n v. City of Malibu*, 41 Cal. Rptr. 3d 200 (Cal. Ct. App. 2006) a California court of appeal invalidated the city's closed session land use agreement as "inherently invalid because it included commitments to take or refrain from regulatory actions regarding the zoning of the development project" because its adoption in closed session violated the Brown Act.

²⁸⁸ See, e.g., Laura Solitare, *Prerequisite Conditions for Meaningful Participation in Brownfields Redevelopment*, 48 J. ENVTL. PLAN. & MGMT. 917, 920 (2005):

[Participation can] promote democracy, improve the quality of decisions, educate the public, legitimize decisions, promote community empowerment, break gridlock and minimize costs. Additionally, by having environmental decision making open to citizen participation, the process gains legitimacy in the eyes of the public. If lay citizens participate in the process,

necessary for redevelopment, and so they generally clean and develop brownfields with private partners.²⁸⁹ The involvement of private, profit-seeking developers often engenders concern. Successful projects incorporate tangible citizen participation and review, including access to technical data, as a means for balancing public concerns about the development process being “hijacked” or dominated by private development interests and their allies in cities.²⁹⁰

Communities are concerned about brownfield reuse because it relates to their health and neighborhoods, so procedures for making such decisions are important.²⁹¹ In addition, larger land-use plans, such as redevelopment projects, typically invite greater concern.²⁹² The existence of pollution raises the stakes higher still.²⁹³ In the short term, citizens want a say in what affects them, such as the timing of major cleanup

they tend to accept the outcomes of the process as valid and fair, even if these are not to their own advantage (emphasis added).

²⁸⁹ U.S. EPA Brownfields Federal Partnership Action Agenda, <http://www.epa.gov/brownfields/html-doc/fedparfs.htm> (last visited July 20, 2007) (emphasizing the federal focus on partnerships); CENTER FOR ECON. DEV., SCH. OF POL'Y, PLAN. & DEV. UNIV. OF SO. CAL., LEVERAGING PRIVATE INVESTMENT CAPITAL FOR BROWNFIELDS CLEANUP AND REDEVELOPMENT 2 (2003), http://www.usc.edu/sppd/ced/Leveraging_Private_Investment.pdf (“A major task of redeveloping Brownfield sites is procuring funding assistance from available organizations.”).

²⁹⁰ Eisen, *supra* note 27, at n.19 (“The states should . . . provide the affected community with the necessary technical and financial resources to facilitate decision making.”).

²⁹¹ BARTSCH, COMMUNITY INVOLVEMENT IN BROWNFIELD REDEVELOPMENT, *supra* note 259, at 2; *see also* PETER B. MEYER & KRISTEN R. YOUNT, FIGHTING “SPRAWL” BY STIMULATING BROWNFIELD REDEVELOPMENT, WORKING PAPER 10-11 (Center for Environmental Policy and Management 2001) (recommending modification of institutional structures because “[m]ajor inefficiencies arise from miscommunication and lack of coordination across agencies in any one local government,” and noting “[i]nstitutional complexity is compounded significantly when multiple jurisdictions are involved in a joint consideration of any program, but especially those, such as brownfield revitalization or anti-sprawl efforts, with specific geographically-focused impacts.”); Michael R. Thomas, *Brownfield Redevelopment: Information Issues and the Affected Public*, 5 ENVTL. PRACTICE 62, 67 (2003) (brownfield process often demands more information than other real estate transactions: info “about land capability; development incentives; and public goals, interests, and preferences.”).

²⁹² BARTSCH, COMMUNITY INVOLVEMENT IN BROWNFIELD REDEVELOPMENT, *supra* note 259, at 8; *see also* GRANT BOYKEN, RETHINKING REDEVELOPMENT OVERSIGHT: EXPLORING POSSIBILITIES FOR INCREASING LOCAL INPUT 5 (California Research Bureau 2007) (“Due to concerns about redevelopment agency activities, there have been a number of legislative reforms designed to change, and add some oversight, to redevelopment agency practices.”).

²⁹³ PETER B. MEYER, WORKING PAPER, APPROACHES TO BROWNFIELD REGENERATION: THE RELATIVE VALUE OF FINANCIAL INCENTIVES, RELAXED MITIGATION STANDARDS, AND REGULATORY CERTAINTY 8 (Center for Environmental Policy and Management 2000). (“[I]f the public does not accept the pollution mitigation or containment standards used, then a negative effect could emerge, resulting in a reduced value . . . that could undermine the gains on other variables.”).

activities, precautions taken, or the level of monitoring.²⁹⁴ In the long run, citizens want to share in the benefits of the project, particularly to the extent that they may disproportionately experience the negative aspects of development.²⁹⁵ The negatives of brownfield cleanup and development include environmental hazards, such as “toxic emissions or excessive noise from factories, airports, highways, and other facilities,”²⁹⁶ and social effects, such as gentrification and displacement.²⁹⁷ In sum, citizens do not want to see their overall quality of life deteriorate.²⁹⁸

Many citizens would rather see nothing be built than have their lives made worse by a development, even if the development would benefit the community as a whole.²⁹⁹ Richmond citizens had such concerns over Campus Bay.³⁰⁰

F. TWO ALTERNATIVES TO REDEVELOPMENT-AGENCY BROWNFIELD LEADERSHIP

Two alternatives to state-law brownfield redevelopment of contaminated property are straightforward. One is doing nothing—leaving the contaminated properties undeveloped. The market will “capture” these properties once conditions are more favorable.³⁰¹ The other alternative is increasing CERCLA enforcement to change market

²⁹⁴ BARTSCH, COMMUNITY INVOLVEMENT IN BROWNFIELD REDEVELOPMENT, *supra* note 259, at 9.

²⁹⁵ See *id.*; Michelle DePassa, *Brownfields as a Tool for the Rejuvenation of Land and Community*, 11 LOC. ENV'T 601, 603 (2006) (“there must be some notion of balance where the people at risk to exposure to contamination, share in an equitable or proportional level of benefit.”).

²⁹⁶ Brownfields and Environmental Justice, http://www.epa.gov/region8/land_waste/bfhome/bfej.html (last visited Mar. 23, 2007).

²⁹⁷ RICHARD MOORE ET AL., UNINTENDED IMPACTS OF REDEVELOPMENT AND REVITALIZATION EFFORTS IN FIVE ENVIRONMENTAL JUSTICE COMMUNITIES i, 2 (National Environmental Justice Advisory Council 2006) (analyzing why gentrification and displacement are environmental justice issues).

²⁹⁸ BARTSCH, COMMUNITY INVOLVEMENT IN BROWNFIELD REDEVELOPMENT, *supra* note 259, at 3. (“Communities need to determine whether the brownfield vision will be stronger in isolation or integrated into broader “quality of life issues” of great concern to their areas.”); See generally B. ADDIS & R. TALBOT, SUSTAINABLE CONSTRUCTION PROCUREMENT: A GUIDE TO DELIVERING ENVIRONMENTALLY RESPONSIBLE PROJECTS C571, 20 (CIRIA 2001) (London publication noting that “decisions about construction [i.e., the built environment] ultimately have a huge impact on the quality of life of societies and individuals.”).

²⁹⁹ See BARTSCH, COMMUNITY INVOLVEMENT IN BROWNFIELD REDEVELOPMENT, *supra* note 259, at 3 (noting concern over quality of life issues).

³⁰⁰ Richard Brenneman, *Richmond Soil Radiation Levels Debated at Advisory Meeting*, BERKELEY DAILY PLANET, Oct. 17, 2006, available at <http://www.berkeleydaily.org/article.cfm?archiveDate=10-17-06&storyID=25340>.

³⁰¹ See Chang & Sigman, *supra* note 74, at 10, 12, 18 (discussing positive externalities [benefits] that are to be “captured.”).

conditions (listing properties or threatening to list properties on the NPL). Increased enforcement, or the threat of enforcement, would make voluntary cleanups more attractive as a way of avoiding potential CERCLA liability and as a means of recovering costs. Both of these alternatives are insufficient.

The do-nothing solution is inadequate because it captures none of the present benefits of brownfield development.³⁰² Doing nothing does not protect the public from those properties posing a greater risk at present or in the future (even if the properties would qualify currently or prospectively as CERCLA Superfund sites).³⁰³ Practically, this is a period of great interest in infill development and smart growth.³⁰⁴ The benefits of brownfield development should be captured while there is interest and while existing residents of cities still have a say—before desperate times lead to desperate measures.

Increased enforcement is also flawed. First, this solution is unlikely to be pursued in the current political and social climate (with no Superfund tax, the Superfund nearly out of money, appropriations to the fund diminishing, and the cost of Superfund cleanups skyrocketing).³⁰⁵ Second, many brownfields are not very³⁰⁶ dirty properties, so they do not qualify for CERCLA enforcement.³⁰⁷ Finally, CERCLA enforcement is expensive and cumbersome.³⁰⁸

Municipally led brownfield development could be a catalyst.³⁰⁹

³⁰² TUCKER, *supra* note 11, at 2.

³⁰³ Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C.A. § 9606 (Westlaw 2007) (broad federal mandate to address "imminent and substantial endangerment to the public health or welfare or the environment because of an actual or threatened release of a hazardous substance from a facility. . .").

³⁰⁴ Karen Spiller, *Urban Re-Renewal: Downtowns making a comeback as places to call home*, N.H. BUS. REV., Oct. 27, 2006.

³⁰⁵ Melissa Friedland & Michael Cook, *Analysis & Perspective: Reusing Superfund Sites to Protect Human Health, the Environment: Brownfields: Superfund Redevelopment Initiative* ISSN 1521-9410, 37 ENV'T REP. 2213 (Oct. 27, 2006).

³⁰⁶ U.S. ENVTL. PROT. AGENCY, CERCLA OVERVIEW, <http://www.epa.gov/superfund/policy/cercla.htm> (last visited Aug. 6, 2007) (they do not "endanger public health or the environment").

³⁰⁷ GEN. ACCOUNTING OFFICE, SUPERFUND: BARRIERS TO BROWNFIELD GAO/RCED-96-125 3, 7, n.4 (1996) (noting that "most brownfields are not highly contaminated" and would not meet the criteria to be added to the CERCLA National Priorities List), *available at* <http://www.gao.gov/cgi-bin/getrpt?GAO/RCED-96-125>.

³⁰⁸ Tracy A. Hudak, *Addressing Barriers to Brownfield Redevelopment: An Analysis of CERCLA and the Voluntary Cleanup Programs of Ohio, Pennsylvania and Michigan* 52 (2002) (masters thesis, Virginia Polytechnic Institute and State University) ("Cleanups conducted under CERCLA are a cumbersome, uncertain and expensive . . ."), *available at* <http://scholar.lib.vt.edu/theses/available/etd-05032002-162337/unrestricted/HudakMajorPaper.pdf>.

³⁰⁹ Charles Bartsch, *Financing Brownfield Cleanup and Redevelopment*, *supra* note 29, at 26-

Using Polanco to remediate brownfields provides additional justification for redevelopment in light of greater public scrutiny. If it turns out to be popular, the method will provide an available, fast, and effective means of remediating brownfields. It will redevelop in a manner that includes public involvement and addresses the concerns of existing citizens. Municipalities are already involved in land-use decisions related to brownfield redevelopment. Redevelopment agencies can add value to projects, and make feasible otherwise infeasible projects, by reducing cleanup and economic uncertainty. Cleanup uncertainty is mitigated through incentives addressing investment risk and liability protection provided by the Polanco immunities.

IV. CONCLUSION

Noting brownfield remediation has stalled, this Comment sees redevelopment-agency-led brownfield cleanups as a means of addressing some of the policy shortcomings in brownfield remediations — namely economic risks related to investment and cleanup liability. With the deterioration of the cleanup and redevelopment in Campus Bay, a case study used throughout this comment, it is clear that the problems of brownfield remediation and redevelopment policy are far greater than the economic risks that stall much brownfield development. Human exposure to toxins and to economic and racial inequalities in exposure, cleanup, and redevelopment remain issues that must be addressed in order to realize the gains of brownfield remediation and redevelopment. Still, redevelopment-agency-led cleanups and redevelopments can be an effective means of addressing economic uncertainty around investment-backed expectations and cleanup liability. But even if those concerns are addressed, brownfield reuse will not be successful, and brownfields *should not* be developed unless the redevelopment process can address inequalities in exposure and benefits.

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