

Executive Summary

Central to policy efforts to realize sustainable urban development is resolution of the problem of brownfields—the restoration of environmentally contaminated properties that have been abandoned and may now pose ecological and human health threats, often to communities of color and low to moderate incomes. Researchers have reported for more than a decade on the persistence of this problem:

- In a landmark study in 1987, the United Church of Christ Commission for Racial Justice established a clear link between race, income, and the siting of hazardous and toxic waste facilities. It found that commercial hazardous waste facilities had the greatest probability of being situated near communities predominantly composed of racial and ethnic minorities (UCC, 1987).
- A *National Law Journal* article reported in 1992 that the U.S. Environmental Protection Agency (EPA) took 20% longer to place abandoned and hazardous toxic waste sites in minority communities on the national priorities list than it took to list similar facilities situated elsewhere. It also found that polluters of those neighborhoods paid fines 45% lower than polluters of white communities (Lavelle and Coyle, 1992).
- In 1992, EPA concluded that people of color and low income communities experience disproportionately high exposure to toxic pollutants throughout the U.S. (EPA, 1992).
- A 1994 National Wildlife Fund report reviewed 64 major cases of environmental threats to public health, covering issues of pesticide exposure, workplace hazards, air and water pollution, solid and toxic wastes, lead poisoning, trash incineration, and sewage disposal. It found that low income or minority communities were at greatest risk in all but one of the cases examined (NWF, 1994).
- In a 1995 study, the Center for Policy Alternatives estimated that minorities are 47% more likely than whites to live near a toxic waste facility and 170% more likely to live in areas with multiple toxic facilities (Kratch et al, 1995).

“Abandoned commercial and industrial properties called ‘brownfields’ which dot the urban landscape are overwhelmingly concentrated in people of color, low-income, indigenous peoples, and otherwise marginalized communities. By their very nature, brownfields are inseparable from issues of social inequity, racial discrimination and urban decay...the inescapable context for examination of the brownfields issue is environmental justice and urban revitalization.”
(National Environmental Justice Advisory Council, 1996: 18)

The federal government has acknowledged the importance of brownfields redevelopment in urban revitalization efforts. The Brownfields National Partnership Action Agenda and a Brownfields Tax Incentive were created in 1997, and the EPA has several initiatives underway to tackle brownfield issues. One of the EPA’s most significant efforts is the National and Regional Brownfields Pilot Projects Program which focuses on the interconnection between brownfields redevelopment, environmental justice, and urban revitalization. Since 1994, the program has provided \$24 million in seed money to over 228 communities. In addition, the Empowerment Zone/Enterprise Community (EZ/EC) Program, established in 1994, includes efforts to address the problem, stressing community-based planning as an essential ingredient.

Definitions of Important Terms

Sustainable Development: Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Brownfields: Abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Environmental Justice: Fair treatment for people of all races, cultures, and incomes in the enactment and enforcement of environmental laws, regulations, and policies.

Empowerment Zones/Enterprise Communities: A Presidential initiative designed to afford communities new opportunities for growth and revitalization. The framework of the EZ/EC program is embodied in four key principles: Economic Opportunity, Sustainable Community Development, Community-Based Partnerships, and a Strategic Vision for Change.

Urban Revitalization: A bottom-up process that proceeds from a community-based vision of its needs and aspirations. It seeks to build capacity, create partnerships and mobilize resources to make the vision a reality.

Sustainable Community Planning: Within local communities, a coherent vision for achieving healthy and sustainable communities can be found. Brownfields and other community revitalization efforts should recognize and reflect community goals and develop multifaceted and community-based plans to address economic, social and environmental concerns in a sustainable manner.

The EPA and the National Environmental Justice Advisory Council (NEJAC) have identified community involvement as a key to meeting environmental justice and urban revitalization goals in the context of brownfields redevelopment. As a consequence, EPA's National and Regional Brownfields Pilot Project Program gives special emphasis to community participation mechanisms and environmental justice concerns in its program awards.

The State of Brownfields In Delaware

Brownfields redevelopment is an important challenge for the State of Delaware. As the principal center of economic and industrial activity, Wilmington has the bulk of the State's brownfields located within its borders. Historically, industrial development in Delaware has been concentrated in the greater Wilmington area and has largely affected the eastern and southern portions of the city through which the Brandywine and Christiana Rivers flow. Recent studies conducted by Delaware's Department of Natural Resources and Environmental Control (DNREC) indicate that most industrial properties located along these rivers are contaminated.

Current land use estimates indicate that approximately 1,750 acres, or 24% of Wilmington's useable land area, are likely to be environmentally contaminated and must address by jurisdiction, environmental concerns in their redevelopment. Within Wilmington's 16 square mile area, major contaminated areas include Cherry Island, East Seventh Street Peninsula, the Port of Wilmington vicinity, South Madison Street, Bell Alley, Browntown, and Todds Lane.

The lands which contain a high incidence of brownfields all share a common history. They were long-time hosts to polluting industries that have since shut down or moved on as environmental codes in the state have become stricter—leaving behind unresolved contamination problems. DNREC studies reveal that extensive areas of soil, sediment, and water contamination from chemicals and metals exist in Wilmington’s brownfields (DNREC, *Workplan for Field Activities for Bell Alley/South Wilmington Environmental Assessment*, 1995). These chemicals and metals can pose risks to human health.

As a consequence, Wilmington’s resident population of approximately 74,000 face disproportionate environmental risks. The concentration of brownfields in Wilmington also imposes a heavy economic burden because it serves as a barrier to the optimum use of 24% of its land for tax-generating revenue and employment. The inability to fully convert this land into reusable and economically viable property limits economic opportunities, investment and long-term employment available to City residents.

In addition to degrading the City’s environment, exposing residents to environmental and health risks and limiting economic opportunities in Wilmington, the high incidence of brownfields is a contributing factor to the phenomenon of urban sprawl. It has encouraged the migration of both industries and residents seeking to avoid the multiple problems associated with the economic and environmental consequences of brownfields. These factors shift economic activity away from the City and towards the development of suburban areas. In this manner, environmental degradation associated with sprawl is expanded to areas beyond Wilmington.

Brownfields, Environmental Justice and Urban Revitalization in Delaware

Brownfields in Wilmington display strong links between economic, environmental, and social problems. Many of the brownfield areas are within or adjacent to neighborhoods characterized by high levels of economic hardship and are among a predominantly minority population.

DNREC’s environmental assessments have established that there are many contaminated areas in the City that expose their residents and those that live near them to environmental and health risks. Public health workers have confirmed that these areas are unhealthy and that the worst areas of environmental pollution are those that comprise Wilmington’s Enterprise Community (City of Wilmington, *Brownfields Economic Redevelopment Initiative*, 1996). In addition, according to 1990 Census data:

- A high level of minority residents reside in or adjacent to brownfield areas located in the City. In many brownfield areas, minority residents represent over 70% of the population;
- Most neighborhoods that are located in or adjacent to brownfield areas in the City have poverty rates of nearly 20% and some areas report poverty rates above 35%; and
- Most communities that are in or adjacent to brownfield areas in the City have populations in which the percentage of children exceeds 15% and some exceed 20% (this is particularly significant to environmental and health issues since children are among the most susceptible to the risks associated with brownfields).

A 1996 study of Wilmington's Enterprise Community conducted by the Center for Energy and Environmental Policy (CEEP) and the Center for Community Development and Family Policy (CCDFP) at the University of Delaware further exhibits these links. Focus group interviews and survey research conducted in Wilmington's Southbridge neighborhood found that both community leaders and residents believe that their neighborhood is subject to serious environmental problems which are detrimental to the health of residents. Efforts on the part of community leaders and residents to address these environmental concerns and the impact of polluting industries in the area have been unsuccessful. Leaders and residents alike explain the lack of success to environmental injustices embedded in policy and economic activity.

Overall, Delaware's brownfield situation underscores the need for policies that promote environmentally sensitive redevelopment which targets benefits to affected communities. This can ensure that environmental, health, economic, and social considerations are accounted for in a comprehensive and fair manner.

Efforts to Redevelop Delaware's Brownfields

In response to brownfields concerns, both the State of Delaware and more recently the City of Wilmington have initiated legislative and programmatic efforts designed to promote brownfields redevelopment.

The State's brownfield activities are administered by the Site Investigation and Restoration Branch (SIRB) and have been primarily directed toward site assessment and redevelopment (interview with Karl Kalbacher, Program Manager I, Superfund Branch, Division of Air and Waste Management, DNREC, May 12, 1998). The goal has been to encourage redevelopment through cooperation rather than confrontation. DNREC's Voluntary Cleanup Program (VCP) and Delaware's Brownfields Assistance Program have been the driving forces behind this strategy.

Overall, Wilmington's brownfields efforts have sought to integrate redevelopment opportunities within a community context to ensure that the benefits of brownfields activities are realized by affected communities. The City is currently in the early stages of implementing its Brownfields Work Plan, but it is evident that coordination of information and environmental justice concerns are already viewed as significant elements of successful brownfields redevelopment.

Delaware Brownfields-Related Legislation and Programs

Hazardous Substance Cleanup Act of 1990: *First legislation in the state to address the remediation of hazardous/toxic waste sites in Delaware. Designed to provide a workable process for effective and timely cleanup of contaminated facilities and areas.*

HSCA Amendment of 1995 Creating a Voluntary Cleanup Program: *Amendment to 1990 legislation that makes it attractive for parties to enter into voluntary cleanup agreements with DNREC by limiting liability concerns.*

Establishment of Delaware's Brownfields Assistance Program: *State program which provides incentives for developers and investors to recycle brownfields. They include a funding pool for site investigations and tax incentives for cleanup and redevelopment.*

Federal Enterprise Community Designation in Wilmington by HUD: *Wilmington's strategic plan focuses on themes that highlight the need for brownfields redevelopment. The sections on economic development and supportive communities discuss the resolution of cleanup issues and redevelopment activities to alleviate environmental degradation, make the community environmentally healthier, and provide needed economic opportunities to residents.*

National Brownfields Pilot Program Designation in Wilmington by EPA: *Wilmington's National Brownfields Pilot Program focuses on areas within the Enterprise Community. Its objectives are to create an inventory of brownfields sites, increase neighborhood capacity to participate in the brownfields process, and conduct outreach activities to educate site owners, developers, and investors about brownfields redevelopment incentives.*

Community Participation and Environmental Justice Efforts

At the state-level, making provision for community participation in the brownfields redevelopment process falls to DNREC. Community participation is called for in DNREC's Memorandum of Agreement (MOA) with EPA, which states that affected citizens and nearby property owners (in addition to other actors) "must be informed and given meaningful opportunities for involvement in the decision-making process during the investigation and cleanup of the site" (EPA and DNREC, *Environmental Partnership Agreement*, 1997). Public participation in DNREC's Voluntary Cleanup Program (VCP) is also emphasized as a provision of Delaware's Hazardous Substance Cleanup Act

"There is a need to involve the community-at-large in the planning and project development process. Current participation is selective and sporadic. The goal of ensuring environmental justice by empowering, educating, and protecting the community is best achieved through shared knowledge. The confrontational, adversarial situations that arise in the community occur because knowledge is restricted to a select few...our intention is to intimately involve our communities in development projects at an early stage, and to facilitate their development in legislation to provide a mandated review process" (City of Wilmington, *Brownfields Economic Redevelopment Initiative*, 1996: 8).

(HSCA) of 1990. After the VCP has informed the public of cleanup plans for a property, communities are given a period of 20 days to comment. According to DNREC, VCP parties are encouraged to take an active role in informing the public of plans and actions regarding brownfields properties. DNREC has also recently entered into an MOA with the City of Wilmington to enhance communication lines regarding brownfields properties. Finally, DNREC has begun to examine how the agency can better integrate environmental justice concerns into its existing activities. It has appointed an environmental justice coordinator and established an advisory committee to encourage all of its branches to consider how environmental justice can be pursued as an agency-wide goal and incorporated into its policies and programs.

Wilmington's Department of Planning has responsibility for coordinating brownfields cleanup and redevelopment activities, including community participation, at the city level. The Brownfields Assessment Coordinator is responsible for administering the Pilot Project. In addition, the City's Emergency Management Coordinator, who is responsible for public health and safety issues, is leading Wilmington's efforts to integrate environmental justice concerns into the City's policies and programs. The City's Enterprise Community, through its creation of community input mechanisms in the decision-making process, also serves the purpose of promoting active community involvement in the brownfields redevelopment process.

To promote community participation and environmental justice in the Pilot Project, a significant portion of Wilmington's grant has been allocated to the Urban Environmental Center (UEC). The UEC is the City's community-based partner and is developing programs to inform, involve, and empower the residents of brownfield areas in the redevelopment process. UEC was awarded an Environmental Justice Grant from EPA in 1998 to expand its activities in this domain. The Center for Energy and Environmental Policy (CEEP) of the University of Delaware provides technical assistance to the UEC to help it to develop environmental justice plans and to build community awareness about brownfields and sustainable development alternatives.

Comparison of Community Participation in Brownfields Pilot Projects

When EPA began its Brownfields Pilot Project Program, its purpose was to learn from states and localities, struggling with brownfields issues of their own, about different models to address the problems of cleanup and redevelopment in an environmentally just and sustainable manner. The knowledge gained from these pilots can provide a foundation of experience for Delaware to consider as it continues to implement its brownfields projects and programs.

Ten sites were selected for this report to capture for Delaware a "best practices" understanding of how other jurisdictions are involving communities in the brownfields redevelopment process. The following EPA-awarded brownfields pilot projects were studied in-depth: Baltimore, MD; Bridgeport, CT; Burlington, VT; Charlotte, NC; Cleveland, OH; Kansas City, KS and MO; New Orleans, LA; Northampton County/Cape Charles, VA; Portland, OR; and Trenton, NJ. These pilot projects were analyzed along seven key criteria: Inclusiveness of Community Involvement; Diversity of Mechanisms for Community Involvement; Efforts to Identify Obstacles to Community Involvement; Inclusion of Community Perspectives in Needs Assessment; Emphasis Given to

Environmental Justice; Promotion of Sustainable Community/Industry Partnerships; and Pilot Strengths and Achievements in Building Sustainable Communities.

Recommendations for Delaware's Brownfields

Environmentally just and sustainable development can be achieved through meaningfully integrating community participation and environmental justice in Delaware's brownfields redevelopment process. New policies, processes, and procedures are needed to fully realize these goals. Through our analysis of Delaware's current brownfields programs and policies, as well as community participation and environmental justice efforts, and an in-depth analysis of the experiences of ten pilot projects, we are able to offer the following recommendations.

- **Develop a statement of goals to integrate community participation and environmental justice concerns into Delaware's brownfields redevelopment process. This would reaffirm Delaware's commitment to environmentally just and sustainable development and provide a common context for action amongst stakeholders.**
- **Build awareness at the community level throughout Delaware by developing a state-wide program to inform, involve, and empower the residents of brownfield areas in the redevelopment process.**
- **Coordinate community participation and environmental justice efforts across State and City government agencies.**
- **Enhance communications between government, private interests and the community to supply community residents and organizations with needed technical, health, cleanup and redevelopment information while recognizing the valuable knowledge of environmental and social problems that those groups possess.**
- **Operationalize meaningful community participation and environmental justice efforts through permitting, licensing, and statutes.**
- **Institutionalize environmental justice goals by establishing state-level institutional responsibilities to provide advice, recommendations, and evaluations on State policy and programs needed in this area.**
- **Create a State-supported fund to assist communities in building capacity and awareness to address issues of brownfields redevelopment, environmental justice and sustainable development.**