# BROWNFIELDS REMEDIATION AND REDEVELOPMENT POLICIES, INCENTIVES, AND PILOT PROJECTS

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#### **ABSTRACT**

Federal legislation and proposals for economic incentives and funding have played an important role in the legislative development of brownfield remediation programs. Through these proposals and laws, such as the Asset Conservation, Lender Liability, and Deposit Insurance Protection Act, many brownfield sites have been redeveloped. The Brownfields Tax Incentive program provides one and one-half billion dollars for the redevelopment of brownfields in destitute urban and rural areas throughout the nation. This incentive is expected to generate six billion dollars in private investments and revitalize fourteen thousand brownfield sites. In terms of federal funding, Congress has reserved eighty-six million dollars for brownfield cleanup and reuse for fiscal year 1998. Additional funding could also be provided by the Brownfields and Environmental Cleanup Act, Community Revitalization and Brownfield Cleanup Act, and the Department of Housing and Urban Development. This study summarizes the evolution of brownfields' legislative development and provides information about nine specific brownfield sites, which have received funding ranging from 100,000 to 2.1 million dollars. These deteriorated industrial or commercial districts have now become showcase areas for the communities.

### INTRODUCTION

Brownfields represent the residual effects of industrial activities that are no longer functional. The Superfund Program, which deals with the release of hazardous substances to the environment, predominantly focuses on sites that

pose a high level risk to public health or the environment. Generally, brownfields fail to meet the Superfund criteria and are usually overlooked. As a result, economic barriers hinder their chances for redevelopment. Brownfield sites are abandoned, idled or under-used industrial and/or commercial properties, overwhelmingly concentrated in economically distressed and otherwise marginalized communities [1]. Expansion or redevelopment of brownfield sites is complicated by real or conceived contamination. Adjoining brownfield sites are usually grouped into brownfields areas [2]. Contemporary urban issues such as racial discrimination and urban decay have developed in parallel to formation and further deterioration of brownfield sites [1]. These issues have been evident in adverse land use decisions, housing discrimination, residential segregation, community disinvestment, infrastructure decay, lack of educational and employment opportunities, and urban sprawl [3]. Negative social impacts and overall community disintegration have caused the citizens of the affected communities to ask for assistance from all levels of government, private sector, and non-government organizations. In response, federal agencies have joined to strengthen and improve their collaborative efforts to clean up and reuse contaminated properties. The objectives of this study are to review federal incentives, legislative acts, and policies relative to brownfield remediation and redevelopment activities and analyze the outcome of these programs by examining nine brownfield pilot projects which have benefitted from the brownfield incentives.

# ENVIRONMENTAL JUSTICE AND ECONOMIC REDEVELOPMENT INITIATIVES

In 1995, the National Environmental Justice Advisory Council (NEJAC) Waste and Facility Siting Subcommittee and the U.S. Environmental Protection Agency (EPA) cosponsored a series of public hearings entitled, "Public Dialogues on Urban Revitalization and Brownfields: Envisioning Healthy and Sustainable Communities" [1] in five cities: Boston, Philadelphia, Detroit, Oakland, and Atlanta. Their main objective was to provide the opportunity for environmental justice to residents and advocates of the impacted communities. These dialogues also served the purpose of introducing the EPA's Economic Redevelopment Initiative. Through this initiative, the EPA became involved in community-based brownfields redevelopment activities. The EPA's Economic Redevelopment Initiative is designed to authorize states, communities, and other interested parties to work together in a timely and efficient manner to assess, cleanup, and sustainable reuse brownfields [4]. EPA's Brownfields Initiative identifies and directs attention to barriers that hinder cleanup and redevelopment. This program includes a vast amount of strategies, such as funding of pilot programs, research efforts, clarification of liability issues, and development of job training programs.

The Brownfields Initiative Program has lead to the development of the "Brownfields Showcase Communities." There are sixteen communities, which

serve as models to demonstrate the benefits of focused and coordinated efforts on brownfields. The models are distributed across the country from Florida to Washington and each of the sites vary in size, resources, and community types [5]. Brownfield Showcase Communities are the result of a "Brownfield National Partnership" which includes the participation of various federal agencies that will offer special technical, financial, and other assistance to the selected communities. The Brownfield National Partnership project has three main objectives [6].

- 1. To promote environmental protection and restoration, economic redevelopment, job creation, community revitalization, and public health protection through the clean up and sustainable reuse of brownfields;
- 2. To provide a link between federal, state, local, and non-governmental action supporting community efforts to restore and reuse brownfields; and
- 3. To develop national models demonstrating the positive results of both private and public collaboration in addressing brownfield challenges.

In May 1997, the federal government announced the Brownfields National Partnership Action Agenda—a two-year federal initiative that invests three hundred million dollars for brownfields remediation and redevelopment, which includes more than fifteen federal agencies that will work in the local communities. This initiative also includes an additional one hundred and sixty-five million dollars in loan guarantees. This partnership between federal, state, local governments, and the public sector will bring in between five to twenty-eight billion dollars in private investment and create one hundred and ninety-six thousand new jobs to the communities, and help to save up to thirty-four thousand acres of undeveloped land outside the cities [4]. The Brownfield National Partnership brings with it over one hundred commitments from over twenty-five organizations to accelerate the development of the five thousand sites. The quality of life is also expected to improve for approximately eighteen million people living around these sites. This massive undertaking will attempt to improve communities by developing partnerships between public and private organizations to link environmental protection with economic development and community revitalization [4].

#### **BROWNFIELDS PILOT PROJECTS**

Table 1 demonstrates nine identified brownfield sites throughout the country. All sites have been allocated federal funds ranging from \$100,000 (Miami, Florida) to \$2.1 million (Trenton, New Jersey). These deteriorated industrial and/or commercial district sites all have environmental contamination, above normal poverty rates, severe crime, and poor accessibility. The Brownfields Redevelopment Program has helped to revitalize the neighborhoods in economic and social despair such as the brownfield development projects in Salt Lake City, Utah, and Miami, Florida. In Salt Lake City, a 650-acre industrial district with

Table 1. Brownfield Pilots

and Use	Restoration of land with new businesses to create 1,700 full-time jobs and over \$200 million in annual sales	Delta Center Sports Arena that will host the 2002 Winter Olympics figure skating competition and the Triad Center Business Complex	Commercial & housing complex, sports arena, a fire station, and ferry terminal Phousing, retail, and industrial use Park land, housing complex, and office space Will create 600 construction & 1300 permanent jobs.	Restoration of area to revitalize and create industrial and residential section	One site will have a new shopping center and office complex, creating more than 400 jobs
Proposed Land Use	Restoration nesses to cland and over \$2	Delta Cente host the 200 figure skatir Triad Cente	1. Commercial & hou sports arena, a fire ferry terminal 2. Housing, retail, an 3. Park land, housing office space "Will create 600 const	Restoration of are and create industresidential section	One site will have a center and office comore than 400 jobs
Previous Land Use	Heavy industrial and manufacturing properties	Distressed industrial district affected by environmental contamination, severe crime, and poor accessibility	(40 acres) gas plant     (22 acres) manufacturing     complex and foundry     (17 acres) fuel and oil depot	(6 acres) Riverside Mills site, used for oil storage and illegal dump site     Lincoln Lace and Braid site, former industrial area in the Hartford section	Industrial areas within residential neighborhoods
Preliminary Allocated Federal Funds	\$1.4 million	\$1.1 million	\$979,000  *expected to leverage \$370 million in private investments	\$1.8 million	\$2.1 million "these sites have leveraged and estimated \$90
Size of Site	146 acres	650 acres	79 total acres	15 total acres	nearly 100 acres
Site	Glen Cove, New York	Sait Lake City, Utah	Stamford, Connecticut (3 sites)	State of Rhode Island (2 sites)	Trenton, New Jersey (30 sites)

on 1. Redevelopment of over 150 acres % of vacant industrial and dilapidated housing es 2. Extension of Finley Avenue, a ron critical industrial and neighborhood link	and 1. Construction of a new sports to complex and the expansion of the with downtown's port facilities.	cades The Gaines Street/Cascades Corridor could support increased residential, commercial, and light industrial uses. The Corridor is ock- downtown Tallahassee.	re Restoration of area to revitalize and ial create industrial and residential section narily les, and
Area was used by the iron and steel industries, 40% of area property is now vacant and in many cases contaminated from old iron foundaries	Agriculture, petroleum, and paper industries that have subsided leaving sites with known or suspected soil and groundwater contamination	The Gaines Street/Cascades Corridor has supported chemical waterhousing, petroleum distribution centers, light industry, animal stock- yards, and a city-owned coal gasification plant and dump	.000 Hosts light industry, ware housing, and commercial facilities. Soil contamination primarily from UST(s), sewer pipes, and industrial chemicals
900 total acres \$200,000	100 downtown \$200,000 sites	450 total acres \$191,000	5 to 6 acres \$100,000
Birmingham, Alabama	Jacksonville, Florida	Tallahassee, Florida (73 sites)	Miami, Florida Wynwood neighborhood (economically distressed with population of 15,500 and a 51 percent poverty rate, exceeding the rest of Miami by about 20%). Hosts light industry, ware- housing, and commercial

environmental contamination, severe crime and poor accessibility will be used as the home of the Delta Center Sports Arena that will host the 2002 Winter Olympics and the Triad Center Business Center. The brownfield pilot in Stamford, Connecticut, with a total size of seventy-nine acres, is also planned to undergo a major change. This site has suffered severe contamination problems due to the gas plant, fuel and oil depot, manufacturing complex, and foundry it once hosted. This site, which is expected to leverage \$370 million in private investments, will host a commercial and housing complex, a sports arena, and ferry terminal creating six hundred construction and one thousand three hundred permanent jobs. The Wynwood neighborhood, in Miami, Florida, an economically distressed community with a population of 15,500 and a 51 percent poverty rate hosts light industry, warehousing, and other commercial facilities. This site, affected by soil contamination primarily from underground storage tanks (UST), sewer pipes, and the industrial leaks is scheduled to undergo a major restoration creating an economically vibrant and safer industrial and residential area.

#### BROWNFIELDS LEGISLATIVE PROGRESSION

The brownfields, legislative development and background began with the Fleet Factors Case in 1990 [6]. This case, which is based on the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), established that lenders could be held liable for making loans on contaminated lands. After this case, very few lenders were willing to invest in the remediation of brownfield sites due to the possible liability. As the number of brownfield properties increased to four hundred and fifty thousand sites to date, the Congress decided to alter and clarify the provision to state that the U.S. EPA will not intervene in liability lawsuits [6]. In 1994, the EPA decided to begin an initiative that would use its authority and funding from the Superfund site assessment authority in section 104(d) of the 42 U.S.C. 9604(d) (CERCLA) [7]. This initiative involved numerous economic incentives which would be used to encourage revitalization in older areas of the major cities in the United States [8].

The EPA has issued guidance for the liability concerns of property owners, developers, prospective purchasers, and lenders. In 1996, the EPA along with Congress passed the Asset Conservation, Lender Liability, and Deposit Insurance Protection Act. The "Act" summarizes the circumstances in which lenders and other interested parties involved in site cleanup activities are shielded from government involvement in CERCLA liability. EPA has since removed over twenty-five thousand property listings from the CERCLA Information System (CERCLIS) to encourage redevelopment of the brownfields [4]. Table 2 presents a summary of the general legislative policies addressing the liability issues in relation to the Superfund. To accelerate brownfield remediation and redevelopment activities, EPA has issued "Comfort/Status Letters" to prospective purchasers notifying them of the status of the cleanup activities at various sites

and the possibility of liability. The document "Final Draft Guidance for Developing Superfund Memoranda of Agreement (MOA) Language Concerning State Voluntary Cleanup Programs (VCP)," as summarized in Table 2, encourages States through the EPA to develop partnerships in order to accelerate the remediation of non-federal sites in the Superfund National Priorities List (NPL), which includes brownfields. Using state voluntary cleanup programs, volunteers or private parties can begin the identification and cleanup of sites through less extensive administrative processes. The document also describes the criteria that the EPA will use to evaluate these VCPs. Thirty-seven states have established VCPs as of December 1996 to encourage the continued remediation of the lower risk hazardous waste properties [9]. By signing MOAs with the States, the EPA clarifies that it will not pursue cost recovery or a lawsuit under CERCLA except under limited circumstances [10].

# FEDERAL TAX AND CAPITAL ATTRACTION INCENTIVES

Federal legislation and proposals regarding brownfield cleanups have been discussed in Congress in the past two years. Table 3 summarizes the federal legislation and proposals for the acceleration of brownfields remediation and redevelopment activities. One important law passed in the Congress in August 1997 was Brownfields Tax Incentive. This incentive provided one and one-half billion dollars for the redevelopment of brownfields in destitute urban and rural areas throughout the country. It is expected to generate six billion dollars in private investment and will revitalize fourteen thousand brownfields. The Tax Incentive Bill was developed in collaboration with the U.S. Conference of Mayors [11]. The bill allows businesses to deduct the expense of remediation from their income taxes in the year they were incurred.

There have been several other proposals on the floor of the 105th Congress that have addressed the issue of brownfields. As displayed in Table 3, HR 996 and HR 523 allow businesses to carry out site characterization and cleanup by decreasing the cost of capital needed to carry out a brownfields project. HR 990 creates the brownfield Industrial-site Remediation Account (IRA) that would allow companies to use tax-exempt funds for future brownfields redevelopment activities. As listed in Table 4, HR 1381 formulates a cleanup loan fund to provide low-interest loans of up to seven hundred and fifty thousand dollars for brownfield restoration activities. Through HR 1620 and S18, the federal government would loan money to states with certified VCPs to capitalize revolving loan funds to carry out site cleanup and pre-cleanup activities. HR 1049 and S 8 provide grants for site inventories and site assessments. These various tax and capital attraction incentives can be the impetus behind the development of these properties [9].

Table 2. Federal Legislation and Proposals for the Acceleration of Brownfields Remediation and Redevelopment Activities

General Policies	Legislative Impacts
Liability Issues and Guidance	The document "Final Draft Guidance for Developing Superfund Memoranda of Agreement (MOA) Language Concerning State Voluntary Cleanup Programs" was created to assure developers and investors that they will not be held liable under the CERCLA for the redevelopment of brownfields. The document states that the EPA will not exercise cost recovery and doesn't foresee taking remedial actions under the Superfund legislation. Only sites under a state certified VCP qualify for these policies.
Guidance on Agreements with Prospective Purchasers of Contaminated Property	Expands the circumstances under which the EPA will enter into Prospective Purchaser Agreements. The guidance outlining the situations in which the EPA will not sue the prospective purchasers for contamination that existed before the purchase.
Policy Toward Owners of Property Containing Contaminated Aquifers	Policy stating that the EPA will not sue property owners for aquifer groundwater contamination underneath the property if the owner did not cause it.
Land Use in the CERCLA Remedy Selection Process	Addresses the increased consideration of anticipated future land uses in the remedy selection decisions at NPL sites. Guidance encourages discussions between local land use planners and the community in the beginning stages of the site assessment process.
Model Comfort Letter Clarifying NPL Listing, Uncontaminated Parcel Identifications, and CERCLA Liability Involving Transfers of Federally Owned Property	Clears up the common misperceptions about National Priorities List directory and CERCLA liability; emphasizes the terms regarding the transfer of federally owned property.
Issuance of Comfort/Status Letters	Provides some level of "comfort" to prospective purchasers, developers, or other interested parties that the EPA will not pursue them for recovery costs for contamination resulting from previous usage. It does not provide a release from CERCLA liability, but rather informs them of the status of the property.

Source: [4].

Tax credits for environmental remediation.

Source: [4, 9].

HR 523

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Tax Incentives	Legislative Impacts
Brownfields Tax Incentive, part of Taxpayer Relief Act (HR 2014/S 235/HR 505) (Signed into Law on August 5, 1997)	Cleanup costs are fully deductible in the year they were incurred. It is a \$1.5 billion incentive that will generate \$6 billion in private investment and restore approximately 14,000 brownfields. EPA's National Priorities List sites are excluded. Applicable for cleanups underway by December 31, 2000. Designates an additional twenty empowerment zones and eighty enterprise communities by the end of 1998. Authorizes a new category of tax-exempt financing for the businesses in the new zones.
нв 996, нв 523	Tax-exempt industrial development bond (IDB) financing for site remediation activities, such as site characterization and cleanup. This tax incentive decreases the cost of capital needed to carry out an extensive brownfields project.
НВ 990	A brownfield Industrial-site Remediation Account (IRA) that would enable businesses to utilize taxexempt funds for future site characterization and remediation. This tax incentive would appeal to small manufacturing companies that have difficulty raising the money for environmental issues.
HR 3020, HR 997, HR 1049	Full expensing of site remediation costs.

Table 4. Federal Capital Attraction Incentive Proposals for the Acceleration of Brownfields Remediation and Redevelopment

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Capital Attraction Incentives	Legislative Impacts
HR 1120, HR 1049, HR 1395, S 18, S 8	Grants for site inventories, site assessments, and pre-cleanup procedures.
HR 1620, HR 2727, HR 1462, HR 3020, S 8, S 18	Federal government loans money to states with certified voluntary cleanup programs (VCPs) to capitalize revolving loan funds to carry out site cleanup, pre-cleanup, or both. These incentives would focus on public and private industrial property owners.
HR 1381	Formulates a U.S. Treasury account, or "cleanup loan fund," to supply low-interest loans of up to \$750,000 for brownfield remediation. Under the supervision of the EPA, the loans would be extracted from the Superfund.
HR 1533, HR 1049, S 1034	Alters existing federal economic development programs—such as various Small Business Administration programs and Community Development Block Grants (CDBG) to incorporate brownfields project initiatives. HUD's FY98 budget provides \$25 million for brownfields cleanup as part of CDBG-funded activities.

Source: [4, 9].

### FEDERAL LEGISLATIVE ACTS FOR BROWNFIELDS CLEANUP

Several federal legislative acts have been proposed in relation to brownfields remediation and redevelopment. In 1977, the Community Reinvestment Act (CRA) was signed into law. As displayed in Table 5, this act required that banks and lenders make funds available for the development of deteriorated communities. In May 1995, the CRA was updated to give credit to banks for providing loans for brownfield projects. In January 1997, a proposal called the Brownfields and Environmental Cleanup Act was presented in which fifteen million dollars annually from the Superfund could be used to finance revolving loan programs. This act would enable the EPA to assign ten million dollars for characterization and site inventory grants. The Brownfields Remediation and Economic Development Act of 1997 is a proposal that could relieve owners from the federal liability of sections 106 and 107 of CERCLA [9]. It would allow taxpayers to formulate their own hazardous waste remediation reserve accounts and to utilize the money on site assessment and cleanup activities. As shown in Table 5, the Community Revitalization and Brownfield Cleanup Act of 1997 could be used to finance brownfield activities by allocating forty-five million dollars annually to local municipalities. Another twenty-five million dollars could be granted to the U.S. Department of Housing and Urban Development for brownfields tasks through the Department of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act of 1998 [9].

### **BROWNFIELDS FEDERAL FUNDING**

Approximately eighty-six million dollars have been allocated to brownfield redevelopment projects in 1998. About half of this funding will be allocated specifically for the following brownfields redevelopment activities:

Additional 100-site assessment pilots	\$20 million
State VCPs	\$15 million
Job training & development programs	\$ 5 million
Specific site assessments	\$ 3 million
Total	\$43 million

# FLORIDA LEGISLATION AND FUNDING REGARDING BROWNFIELD CLEANUP

Through the Florida Legislature, several senate bills have been passed. The Brownfields Redevelopment Act (SB's 1306 and 1934), as shown in Table 6, enables local governments to assign brownfield areas according to specific requirements. It also creates the Brownfield Redevelopment Grants and provides liability protection with reopener provisions. It forms an advisory committee to

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Legislative Acts	Legislative Impacts
Community Reinvestment Act (CRA) (Signed into Law in1977)	Obligates banks, thrifts, and other lenders to make capital available in distressed and deteriorating neighborhoods. Developers, purchasers, and lenders have been unwilling to redevelop contaminated properties in these areas. In May 1995, the Office of the Comptroller of the Currency updated the CRA in order to provide credit to banks that grant loans for the environmental cleanup or redevelopment of a brownfield. These changes have been implemented for the economic revitalization of the distressed urban areas.
Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996 (Signed into Law on September 30, 1996)	Also known as the "Act," it consists of amendments to the secured creditor exemption in the RCRA, lender and creditable liability amendments to CERCLA, and verification of the CERCLA Lender Liability Rule that deals with involuntary acquisitions by the government.
Brownfields and Environmental Cleanup Act of 1997 (January 21, 1997)	Allows the EPA to render \$15 million annually from the Superfund to finance revolving loan programs that encourage brownfield remediation. Also enables the EPA to assign \$10 million for characterization and site inventory grants. Revolving loan grants of up to \$500,000 could be lent to property owners for cleanups.
The New Urban Agenda Act of 1997 (January 21, 1997)	Arranges a federal liability release to non-National Priorities List (NPL) urban sites.
Superfund Cleanup Acceleration Act of 1997 (January 21, 1997)	Entitles \$25 million annually to revitalize brownfields by offering financial aid to state voluntary response programs. Formulates a grant assistance program for site characterization with \$15 million annually and uses \$25 million to capitalize revolving loan funds.
Brownfields Redevelopment Act of 1997 (February 4, 1997)	Fifty percent credit for site cleanup to the property owners not involved in the original site contamination.
Land Recycling Act of 1997 (February 28, 1997)	Removes federal permit requirements for site remediation tasks. Eliminates RCRA or CERCLA enforcement actions at sites under a certified state VCP. State must notify the EPA that it has established a VCP and has the capability to carry out the program.

Brownfields Remediation and Economic Development Act of 1997 (March 6, 1997)	Relieves owners from the federal responsibility of Sections 106 and 107 of CERCLA. Promotes site assessment and cleanup. Superfund accountability release to developers, local government, and lenders. Allows taxpayers to formulate their own hazardous waste remediation reserve accounts.
Brownfields Economic Revitalization Act of 1997 (March 12, 1997)	HUD would give \$25 million annually to cities and states for cleanup and redevelopment. EPA would give \$87 million annually to states for inventory of brownfields, assessments, and final remediation.
Community Revitalization and Brownfield Cleanup Act of 1997 (March 19, 1997)	Utilizes the Superfund to finance brownfield activities by allocating \$45 million annually to local governments. Liability relief for innocent landowners.
Brownfield Reuse and Real Estate Development Act (April 17, 1997)	Allows EPA to certify state VCPs and to amend CERCLA. Liability release for purchasers and owners affected by movement of contamination to the adjoining property.
Superfund Acceleration, Fairness, and Efficiency Act (October 23, 1997)	Authorizes \$85 million annually, through 2002, for assessment and remediation grants to be used from the Superfund. Allocates \$25 million annually, through 2002, to states for technical assistance to create and improve state VCPs.

Secures \$25 million to HUD for brownfields projects.

Department of Veterans Affairs and Housing and Urban Development, and Independent Agencies Appropriations Act of 1998 (October 27, 1997)

Source: [4, 9].

Table 6. Florida Legislative Bills for the Acceleration of Brownfields Remediation and Redevelopment Activities

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Brownfields Bills	Legislative Summary
SB 1202	Formulates new incentives to create interest in brownfield cleanup. Explains that dry-cleaning and petroleum sites are entitled to state funds for cleanup. These sites, though, are not entitled to both restoration funding and the Brownfields Redevelopment Bonus Refunds after July 1, 1998. This act creates the Brownfield Area Loan Guarantee Program and its representative Council (five year state guarantee on loans or loan losses). Clarifies the qualification of several brownfield sites. Grants liability protection for properties attained by local or state governments. Authorizes a municipality containing an EPA brownfield pilot to apply to the Office of Tourism, Trade, and Economic Development (OTTED) for selection as an enterprise zone.
SB 1204	Produces the Brownfield Property Ownership Clearance Assistance Revolving Loan Trust Fund administered by the OTTED. The loan cannot be more than 25% of the total funds available in that fiscal year. The interest rate cannot be greater than that paid on the last bonds sold under Section 14, Article VII of the Florida Constitution. OTTED can provide loans to local governments, community redevelopment agencies, or persons involved in brownfield remediation under s. 376.80, F.S.
SB 244	Creates a tax credit toward either intangible personal property tax or corporate income tax of up to \$2 million per fiscal year. If tax credits exceed tax liability, the unused credits may carry forward for up to 5 years. A taxpayer can receive an added 10% of the total remediation expenses, not surpassing \$50,000, in the last year of cleanup. Bill states specific application requirements. The tax credit can be up to \$5% of the expense of voluntary cleanup tasks that are necessary to site rehabilitation and up to \$250,000 per site per year.
SB's 1306 & 1934 Sections 376.77-84, F.S. (Named 'Brownfields Redevelopment Act')	Allows local governments to assign brownfield areas by resolution if certain criteria are met, including public notice requirements and the formation of an advisory committee to improve public support. Bill provides liability protection for remediation applicants and lenders, with reopener provisions. This act contains a list of economic incentives available. It forms the Brownfield Redevelopment Bonus Refund to be funded from the present Economic Development Trust Fund. It creates the Brownfield Redevelopment Grants. Defines the terms "Brownfield sites" and "Brownfield area."
General Appropriations Act (1997)	Allocated \$3 million to the OTTED for use as Brownfields Redevelopment Grants; \$485,000 for seven positions at DEP to oversee the program.

Source: [11].

oversee public participation and generates the Brownfield Redevelopment Bonus Refund for use by petroleum and dry-cleaning sites that have been classified as brownfields. These Bonus Refunds are in the amounts of two thousand five hundred dollars and are awarded to businesses for each new Florida job created in a brownfield [12]. SB 1202 is a major bill by Senator Latvala that creates new incentives to spur interest in brownfield redevelopment. It creates the Brownfield Area Loan Guarantee Program that guarantees state loans or losses for a period of five years. The Bill authorizes a city that incorporates an EPA pilot to apply to the Office of Tourism, Trade, and Economic Development (OTTED) for participation as an enterprise zone. The General Appropriations Act of 1997 allocated three million dollars to the OTTED for use as Brownfields Redevelopment Grants [13]. Of this amount, Miami, Clearwater, and St. Petersburg each received five hundred thousand dollars. The cities of Jacksonville, Tallahassee, Gainesville, and Dade County were each given two hundred thousand dollars. Opa-Locka, Ocala, Broward County, Escambia, and the Seminole Tribe of Florida were each granted with one hundred and forty thousand dollars. In 1998, the state budget allocated three hundred thousand for Miami-Dade County and also for Jacksonville [14].

### FLORIDA'S BROWNFIELDS PROGRAM

The Florida Department of Environmental Protection (FDEP) has a major involvement in the Florida Brownfields Program. The FDEP provides regulatory assistance and environmental oversight for those involved in contaminated site cleanups and negotiates Memorandum of Agreement (MOA) with the EPA. Local governing bodies appoint brownfield areas with certain parameters, which include financial guarantees, public notice, and the creation of at least ten new jobs. Once a brownfield area has been identified, the person accountable for site remediation must call the FDEP or a designated pollution control program coordinator to arrange a Brownfield Site Rehabilitation Agreement (BSRA) [12]. The BSRA defines the commitments to meet requirements set by the local, state, and federal statutes and the standards required by a professional engineer/ professional geologist. The BSRA also requires that the Person Responsible for Brownfield Site Rehabilitation (PRFBSR) agree to work under an approved Comprehensive Quality Assurance Plan (QAP). The BSRA includes a cleanup schedule, site access requirements, a pledge to consider Pollution Prevention agendum, and the terms of the redevelopment process. Once a person has signed a BSRA and completed the tasks stated, the PRFBSR will be released of further remediation liability, excluding reopener circumstances. A third party can still follow through with a lawsuit, but the PRFBSR cannot be required to perform additional cleanup [12].

Presently, the Florida guidelines for cleanup of brownfield sites are based on ground water and surface water standards and soil cleanup principles. As of

July 1, 1998, the FDEP will include Risk-Based Corrective Action (RBCA) principles along with site rehabilitation cleanup criteria rulemaking for brownfields [12]. The RBCA parameters are based on the present standards, but it considers the possible risk to human health and the environment.

### CONCLUSIONS

Brownfield redevelopment incentives offer an innovative and cost effective solution to environmental deterioration in urban areas. The activities relative to brownfields also address the environmental justice issues. Environmental justice represents a contemporary environmental vision that has emerged from a community-driven process to revolutionize the concept of a healthy and sustainable neighborhood in the framework of urban development. Brownfields and environmental justice have been closely linked since brownfield sites have been predominantly located in areas suffering from high poverty, unemployment, and crime rates. Brownfield revitalization programs provide the initial momentum for improving environmentally and socially neglected districts of the urban areas. Governmental agencies and the private sector have offered collaborative efforts to put forth many model brownfield redevelopment projects to demonstrate an economic and social revitalization to many distressed communities.

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