

Copyright Warning & Restrictions

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted material.

Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be “used for any purpose other than private study, scholarship, or research.” If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of “fair use” that user may be liable for copyright infringement,

This institution reserves the right to refuse to accept a copying order if, in its judgment, fulfillment of the order would involve violation of copyright law.

Please Note: The author retains the copyright while the New Jersey Institute of Technology reserves the right to distribute this thesis or dissertation

Printing note: If you do not wish to print this page, then select “Pages from: first page # to: last page #” on the print dialog screen

The Van Houten library has removed some of the personal information and all signatures from the approval page and biographical sketches of theses and dissertations in order to protect the identity of NJIT graduates and faculty.

ABSTRACT

EARLY PUBLIC PARTICIPATION AND SUPPORT FOR A BROWNFIELDS REDEVELOPMENT PROJECT: A STUDY ON PERTH AMBOY

**by
Leena A. Raut**

Public participation is an important aspect of brownfields redevelopment. Because brownfields are a localized issue, those most affected by a site should have a say in its redevelopment. Both the process of redevelopment and the final outcome must measure the success of a brownfields project.

Perth Amboy, New Jersey, in conjunction with the Middlesex County Vocational School System, is in the process of preparing former brownfields land into a new vocational-technical high school. Residents were notified after the decision had been made, rather than be included from the start of the decision-making process. Residents within a 500-foot radius were sent a survey to measure their satisfaction with the redevelopment of the high school. Spearman rho correlations were used to determine relationships between thirty-two variables.

Analysis revealed that there is an overall satisfaction with the construction of the vocational-technical high school, but not with the means by which the process was undertaken. Though residents feel it is their responsibility to be active participants, they also hold the city and the county responsible for fostering public participation early in the process. Support for the vocational-technical high school diminishes if local taxes had been applied to the redevelopment project. Recommendations for better inclusion of the public are offered to enhance future participation efforts.

**EARLY PUBLIC PARTICIPATION AND SUPPORT FOR A BROWNFIELDS
REDEVELOPMENT PROJECT: A STUDY ON PERTH AMBOY**

by
Leena A. Raut

**A Thesis
Submitted to the Faculty of
New Jersey Institute of Technology
in Partial Fulfillment of the Requirements for the Degree of
Master of Science in Environmental Policy Studies**

Department of Humanities and Social Sciences

May 2001

Blank Page

APPROVAL PAGE

**EARLY PUBLIC PARTICIPATION AND SUPPORT FOR A BROWNFIELDS
REDEVELOPMENT PROJECT: A STUDY ON PERTH AMBOY**

Leena A. Raut

Dr. Neil M. Maher, Thesis Advisor
Assistant Professor of History, NJIT-Rutgers Newark

Date

Michele Collins, Committee Member
Department of Humanities and Social Sciences, NJIT

Date

Gerard F. McKenna, Committee Member
Associate Director for Technology Transfer and Training, NJIT

Date

BIOGRAPHICAL SKETCH

Author: Leena A. Raut
Degree: Master of Science
Date: May 2001

Undergraduate and Graduate Education:

- Master of Science in Environmental Policy Studies
New Jersey Institute of Technology, Newark, NJ 2001
- Bachelor of Science in Science, Technology, and Society
New Jersey Institute of Technology, Newark NJ 1999

Major: Environmental Policy Studies

This thesis is dedicated to my parents, Rekha and Anil, and my sister Monica

ACKNOWLEDGMENT

I would like to express my deepest gratitude to my advisor, Dr. Neil Maher, and to my committee members, Ms. Michele Collins and Mr. Gerard McKenna for their support, encouragement, and reassurance throughout the thesis process. An extra special thanks goes to Ms. Collins for her help with the survey and statistical analysis portions of the thesis.

There are a few individuals without whom this study could not have been done. My sincere thanks goes to Carlos Alicea for his help in translating the survey and postcard into Spanish. Jennifer Scortino, the information officer of Perth Amboy, and Helga Crowley, the director of the redevelopment agency, provided me with background information that solidified Perth Amboy as the focus of my study. Lastly, but certainly not least, I would like to thank Residents A and B for sharing their story with me. Their kindness, generosity, and hospitality are genuinely appreciated.

Many of my friends provided their encouragement and support. However, Jennifer Coffey and Maneesha Phadke kept my sanity intact with their reassurance and constant contact. Knowing I have such good friends made this process all the more bearable.

TABLE OF CONTENTS

Chapter		Page
1	INTRODUCTION.....	1
2	BACKGROUND OF PERTH AMBOY AND BROWNFIELDS SITES.....	4
	2.1 History of Perth Amboy.....	4
	2.2 Background on Brownfields Site in Perth Amboy.....	7
3	OVERVIEW OF BROWNFIELDS REDEVELOPMENT.....	15
	3.1 Federal Initiatives.....	15
	3.2 The Brownfields Redevelopment Process.....	21
	3.3 New Jersey Brownfields Initiatives.....	23
4	PUBLIC PARTICIPATION.....	28
	4.1 Participation, Trust, and Equity.....	29
	4.2 Recommendations for Public Participation.....	35
	4.3 Models of Public Participation.....	39
5	METHODOLOGY.....	45
	5.1 Research Objectives and Assumptions.....	45
	5.2 Hypothesis.....	46
	5.3 Study Population.....	46
	5.4 Survey Design and Administration.....	48
	5.5 Response Rate.....	51
6	DATA ANALYSIS, RESULTS, AND DISCUSSION.....	53
	6.1 Data Analysis.....	53

TABLE OF CONTENTS
(Continued)

Chapter		Page
6.2	Results and Discussion.	56
	6.2.1 Awareness Category.	61
	6.2.2 Public Participation Category.	64
	6.2.3 City Responsibility Category.	69
	6.2.4 Trust and Satisfaction Category.	72
7	CONCLUSIONS AND POLICY RECOMMENDATIONS.	79
	7.1 Conclusions from the Data Analysis.	79
	7.2 Policy Recommendations.	80
	7.3 Future Research.	82
	7.4 Research Recommendations from the Administration of the Study.	84
APPENDIX A	REDEVELOPMENT MAP OF PERTH AMBOY.	85
APPENDIX B	SURVEY SENT TO RESIDENTS/BUSINESSES WITHIN A 500-FOOT RADIUS OF THE VOCATIONAL-TECHNICAL HIGH SCHOOL.	86
APPENDIX C	FOLLOW-UP POSTCARD.	103
APPENDIX D	CODING SCHEME FOR VARIABLES AND RESPONSES.	105
REFERENCES	108

LIST OF TABLES

Table		Page
5.1	Classification of properties	47
5.2	Total survey yield over time	51
6.1	Gender of respondents	57
6.2	Distribution of ethnicity	57
6.3	Distribution of property type	58
6.4	Years as a Perth Amboy resident	59
6.5	Support for the construction of the high school among residents living in the city 10 or more years	60
6.6	Number who attended public ceremonies relating to brownfields in Perth Amboy	62
6.7	Number who attended ceremonies relating to the vocational- technical high school.....	62
6.8	Correlations associated with "Awareness"	63
6.9	Awareness of contamination (Question 6).....	64
6.10	Number who attended community meetings in Perth Amboy	67
6.11	Number who contacted city administration	67
6.12	Correlations associated with "Public Participation"	68
6.13	Correlations associated with "Public Participation"	69
6.14	Correlations associated with "City Responsibility"	72
6.15	Correlations associated with "Trust and Satisfaction"	76
6.16	Correlations associated with "Trust and Satisfaction"	77
6.17	Frequencies for MYCHOICE	78

LIST OF FIGURES

Figure		Page
2.1	Map of Perth Amboy	4
2.2	Streets surrounding brownfields site.....	8

CHAPTER 1

INTRODUCTION

The goal of this thesis is to examine and assess public participation measures in brownfields redevelopment via the efforts of Perth Amboy, New Jersey as it proceeds with the eventual construction of a new vocational-technical high school. According to the Environmental Protection Agency (EPA), brownfields are defined as “abandoned, idled or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination” (<http://www.epa.gov/swerosps/bf/glossary.htm>). The United States Government Accounting Office estimated 650, 000 brownfields sites throughout the country as of 1998, but there may now be over one million such sites (Meyer, 2000). The redevelopment of brownfields is important to urban revitalization for a number of reasons. Because many of these sites are situated in areas of high unemployment, their reuse can promote economic development by generating revenue, either through the creation of additional jobs or the attraction of new businesses. Brownfields redevelopment makes efficient use of existing facilities, minimizes total costs, protects public goods like clean air and clean water, and improves access to mass transit (Hise & Nelson, 1999).

The amount of environmental contamination, if present, may vary among different types and levels thus making some brownfields more hazardous than others and more costly to redevelop. Because cleanup costs can be high, exactly how much contamination is cleaned depends on use. For example, a brownfields site that will become a paint factory will not require as stringent cleanup standards as that of a site slated to become an

elementary school. In many cases, however, the stigma attached to the potentiality of contamination impedes the chances of redevelopment because of liability issues.

The combination of private and public sector partnerships makes it possible for the redevelopment process to occur. While the need for contamination assessment and cleanup technology falls within the realms of science, technology, and engineering, the costs of cleanup and overall redevelopment involve the financial sector. Issues of liability, property ownership, developers, and property transfer combine both the legal and financial worlds. Government, be it local, state, or federal, plays its role in brownfields as well. However, none of these “players” in the redevelopment process can act without first deciding exactly *what* is to be developed and *where*. This decision, and more importantly *who* makes it, is the integral social component of brownfields redevelopment.

This research assumes that public participation is intimately related to the success of a brownfields redevelopment project. If redevelopment is supposed to benefit the public (whether it be a neighborhood/community, municipality, county, or state), then who better to judge what is the most beneficial for its needs than the public itself? A municipality, a developer, and the public each may have its own definition of what constitutes economic revitalization. A new store in town can contribute to the local economy as can a new park. Perhaps, a nominal entrance fee can be charged for the park. Or perhaps the park can attract people looking to live in less-congested areas with open space; these people will then shop at the existing stores, thus contributing to the local economy. Because there are different interests involved (including those of the future generation), brownfields redevelopment should be viewed as a *socio-economic* mechanism of revitalization that recognizes the importance of public participation.

The Center for Public Environmental Oversight (CPEO), created in 1992 by the San Francisco Urban Institute, is an organization that promotes public participation in the oversight of environmental activities, including but not limited to federal facilities, private ‘Superfund’ sites, and brownfields (<http://www.cpeo.org/about.html>). Along with the Urban Habitat Program and the United Church of Christ Commission on Racial Justice, CPEO has co-sponsored the formation of the National Brownfields Environmental Justice/Community Caucus. A community impact exercise conducted in Lake County, Indiana on October 28, 2000 by CPEO demonstrates that gaining community input provides greater insight regarding environmental risk concerns and brownfields (Siegel, 2001). The views of 20 activists and community members showed that their perspective generates different environmental and redevelopment policies than those of outside agencies.

Using the efforts of Perth Amboy, this study will enrich the field of environmental policy by providing recommendations for improved public participation measures in relation to brownfields redevelopment. Research conclusions based on the administration of a survey to residents of Perth Amboy and an in-depth case study involving two of the residents can be extrapolated to other public participation initiatives within environmental policy. Because brownfields redevelopment is an ongoing and dynamic process, the policy recommendations of this study are equally dynamic and should promote further research.

CHAPTER 2

BACKGROUND ON PERTH AMBOY AND BROWNFIELDS SITE

With the aid of federal and state moneys, the city of Perth Amboy, New Jersey is in the process of brownfields redevelopment. Perth Amboy, located along the Raritan Bay and the Arthur Kill waterway, has about 400 acres of industrial land that meets the EPA's brownfields definition. Once known for its harbor, Perth Amboy must now deal with the negative effects of industrialization and urbanization.

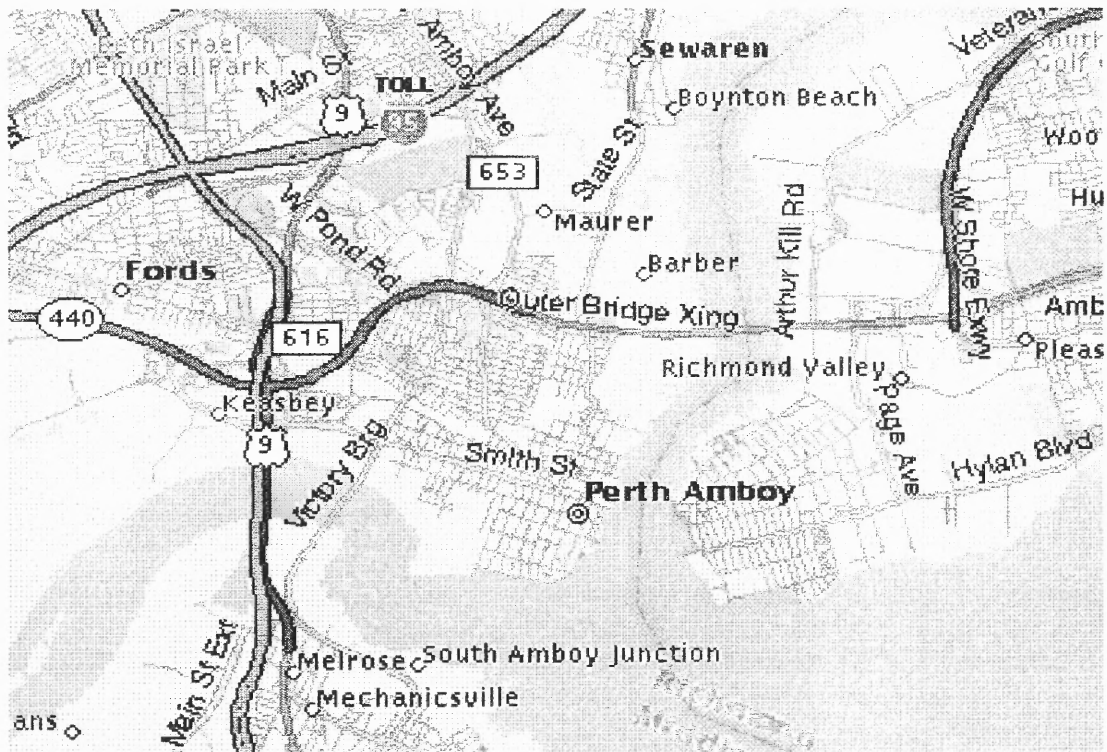


Figure 2.1 Map of Perth Amboy (<http://www.perthamboynewjersey.com/maps.html>)

2.1 History of Perth Amboy

The city was first referred to as Perth Amboy in 1692. The original settlers were Scotch Covenanters, members of the Cameronians--a sect of Scotch Presbyterian dissenters in

search of religious freedom—who sailed to the city aboard the *“Henry & Francis”*. The name of the city is a combination of both American Indian and Scottish influences; “Perth” is in honor of the Earl of Perth who granted the original settlers refuge to East Jersey, while “Amboy” is derivation of the Indian word “ompo” or “ompoye” meaning elbow. In 1686 Perth Amboy became the provincial capital of East Jersey and the permanent location to hold colonial assemblies. Proprietary House, located on Kearny Avenue, was the home of New Jersey’s colonial governors (Miers, 1964).

The industrial character of Perth Amboy is primarily due to its function as a port city. “Its creation was an attempt to wrest a substantial percentage of the lucrative shipping business away from the extremely successful, profitable, and politically powerful port of New York” (Karasik & Aschkens, 1999, p. 35). Ships from Perth Amboy carried goods from the Raritan River merchants to Europe. The various industries that shaped much of the city’s history are listed below. Where possible, dates have been included.

- In 1845 Alfred Hall began manufacturing firebricks from clay. Four years later he opened the Atlantic Terra Cotta Company and made Perth Amboy the terra cotta center of the world. (Cunningham, 1994).
- In 1875 Henry Maurer erected another firebrick plant. This facility manufactured firebrick, red brick, gas retorts, furnace blocks, tile, hollow brick, and French roofing tile. (Wall & Pickersgill, 1921)
- It is said that 1876 marked the true beginning of Perth Amboy’s industrial life with the start of the shipment of anthracite coal. The Lehigh Valley Railroad Company made this possible by locating its tidewater terminus at Perth Amboy. (Wall & Pickersgill, 1921).

- In 1884, the Roessler-Hasslacher Chemical Company began production of coloring materials, cyanides, and other varieties of chemical goods. (Wall & Pickersgill, 1921).
- In 1887, the Perth Amboy Dry Dock Company began business in dry docks, the construction of eight piers, and floating equipment. It housed electric and air-welding plants, complete power equipment, blacksmith and machine shops, and sawmills. (Wall & Pickersgill, 1921).
- In 1898, the Standard Underground Cable Company (later renamed the General Cable Corporation) began manufacturing wire within its cable, rod wire, weatherproof, and rubber departments. From 1914 to 1918 the company was contracted by the United States government to produce tubes and war materials. (Wall & Pickersgill, 1921).
- In 1898 the Raritan Copper Works was established by the Lewisohn Brothers. It became the largest electrolytic copper refinery in the world. The plant also dealt with silver, gold, platinum, palladium, selenium, and tellurium. (Wall & Pickersgill, 1921).
- In 1913, the American Encaustic Tiling Company started the manufacturing of wall tile and decorative tile in colors. The Steel & Enamel Tile Works soon followed. (Wall & Pickersgill, 1921).
- The E. I. DuPont de Nemours & Company took over the former Roessler-Hasslacher Company site in 1930. The name of the Perth Amboy department was changed to the Electrochemicals Department in 1942. The plant produced ceramic color, hexamethylenetetramine, formaldehyde, silver cyanide, and ceramic chemicals. The plant was sold to Mechanic Street Realty Corporation in 1971. Mechanic Street Realty leased the site to other chemical corporations until 1988. Since then the

property has been abandoned (M. McNinch, personal communication, March 29, 2001).

- The American Smelting Company, with the United Lead Company, established a gold, silver, copper, and lead plant. (Wall & Pickersgill, 1921).
- The Barber Asphalt Paving Company refined all asphalt it used east of the Mississippi River and produced roofing paper. (Wall & Pickersgill, 1921).
- The United States Cartridge Company came soon after the lead company. (Wall & Pickersgill, 1921).
- The Cheesebrough Manufacturing Company produced vaseline. (Wall and Pickersgill, 1921).

2.2 Background on Brownfields Site in Perth Amboy

In an effort to mitigate the negative effects of such industrialization, Mayor Joseph Vas unveiled the “Focus 2000” Redevelopment Plan in March 1997. Jacobs Environmental, Inc. of Piscataway, New Jersey prepared the plan. “The goal of the redevelopment plan is the continuation of the City’s efforts to eliminate those conditions that cause areas...to be considered ‘areas in need of redevelopment’” (Jacobs Environmental Inc., 1997, p. 42). Strategies to facilitate redevelopment include: investigation and remediation of contaminated and/or abandoned sites, maximization of existing industrial sites, creation of buffer zones between industrial and residential areas, rerouting of traffic, revitalization of the business district and increased tourism (Jacobs Environmental Inc., 1997). In conjunction with the Perth Amboy Redevelopment Agency, the plan targets three identified redevelopment areas: Southwest-Area 1 (industrial expansion), East-Area 2

(historical, cultural, Renaissance district), and Northeast-Area 3 (industrial, recreational, and retail district). The focus of this research is on one particular site in Area-2 (see Appendix A). Area -2 redevelopment also includes the construction of Harbortown, a residential development along the waterfront, improvement of the waterfront itself, the proposed construction of a performing arts center, and the proposed construction of a Perth Amboy Cultural Center (1997).

Area-2 pertains to the restoration of properties along the waterfront between Buckingham Avenue and Smith Street. A new Middlesex County Vocational-Technical High School, a satellite campus for Middlesex County College (known as the Perth Amboy Urban Center), as well as parking and athletic facilities for student and residential use will be constructed within Area-2. It will be built on High Street between Buckingham Avenue and Washington Street.

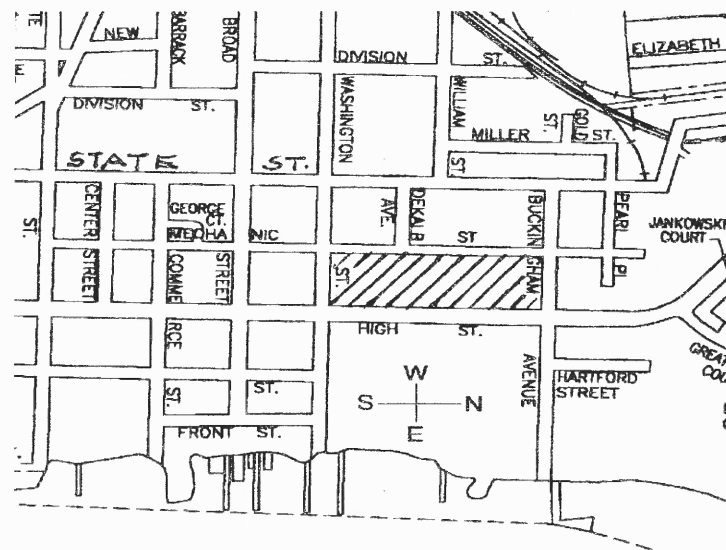


Figure 2.2 Streets surrounding brownfields site

The redevelopment of these properties is a joint venture between the city of Perth Amboy and the Middlesex County Vocational and Technical School System and should be completed by January 2003. The site combines multiple properties to meet the 15-acre

requirement of the new campus. Included are the former General Cable Corporation property (located at the corner of Washington and High Streets), a portion of the abandoned DuPont factory (located at the corner of High Street and Buckingham Avenue), the Ploitnick and Velasco building (441 High Street) adjacent to the DuPont factory, and vacant land across from DuPont (August 6, 1997 Press Release, July 16, 1998 Press Release, October 30, 1998 Press Release, June 2, 2000 Press Release, and program from Oct. 18, 2000 Groundbreaking Ceremony).

According to Jose Jimenez (personal communication, October 4, 2000), President of the Vocational and Technical School Board of Education, the Middlesex County Vocational Technical School System wanted to replace the current vocational-technical high school in Perth Amboy. This high school is over seventy-five years old, with outdated and inadequate facilities that would have cost \$8 million to bring up to code. Realizing that this was not cost-effective, a site selection committee assembled by the county Board of Chosen Freeholders identified eleven sites in Middlesex County, with particular emphasis on Perth Amboy. Working with Mayor Vas, the county initially identified the General Cable property, to which the mayor added the other properties to meet the acreage requirement. On July 16, 1998 the Board of Chosen Freeholders voted on the proposal of this site. (personal communication October 4, 2000 and July 16, 1998 Press Release).

The new site will house a two-story, 126,000 square foot school to serve 250 high school students, 100 adult high school students, 250 adult evening students, and county college students. Twelve thousand square feet of space on the second floor will be designated for the Perth Amboy Urban Center, serving about 400 students annually.

North Brunswick, NJ architects Morton, Russo, & Maggio designed the structure. The high school will be organized as a Schools-Within-a-School system.

“A School of Computer and Business Technology will offer career majors in Automated Office Technology, Computer Assisted Drafting & Design and Electronics and Computer Repair. The School of Service and Automotive Technology will offer Automotive Technology and Culinary Arts. The School of Construction Technology will provide a cluster program in Building Technology, Electrical Technology, and Heating, Ventilation, & Air Conditioning.”
(Program for October 18, 2000 Groundbreaking Ceremony).

There will also be a core curriculum of “traditional” subjects, such as Language Arts, Mathematics, Science, Social Studies, Health, and Physical Education.

Of particular concern to any redevelopment effort is the environmental clean-up required before a site can be put to productive use. Prior to even the actual designation of a vocational-technical high school as the type of redevelopment, Perth Amboy had been evaluating environmental conditions within the Focus 2000 redevelopment areas. Perth Amboy had submitted an application for the grant in January 1997 and was officially notified of its approval on May 9, 1997. In April 1997, the EPA awarded Perth Amboy a \$200,000 grant as part of its Brownfields Pilot program. Mayor Vas officially accepted the check on November 10, 1997. This grant money was used to conduct an initial environmental survey of Perth Amboy’s brownfields, part of which was applied to the

DuPont and General Cable Corporation sites. (May 13, 1997 Press Release, November 10, 1997 Press Release, and October 30, 1998 Press Release).

Contamination on the site involves above ground contamination, soil contamination, ground water contamination, and underground storage tanks (believed to be oil tanks), according to Jimenez (personal communication, October 17, 2000). DuPont utilized the following chemicals, some of which may be part of the contamination: cyanides, paroxides, formaldehyde, ceramics, solvents, refrigerants (for metal cleaning, dry cleaning, and extraction), sodium, fumigants, insecticides, vinyl products, polyvinyl alcohol and acetate, and furfural products. (M. McNinch, personal communication, March 29, 2001). Vectre Corporation of Lafayette, New Jersey investigated contamination of the General Cable Corporation on behalf of the New Jersey Department of Environmental Protection (DEP) and found seven areas of contamination: AST Remote Fill, Polychlorinated biphenyl (PCB) Contamination, Kerosene AST, Solvents in Soil, Ground Water, Drummed waste, and asbestos (personal communication between DEP and Vectre, May 25, 1999). Residents A and B, who did their own research at DEP, provided documentation regarding the groundwater contamination of the General Cable Corporation property. According to a billing and tracking sheet submitted by Vectre Corporation, dated March 14, 1997, soils at the General Cable Corporation property contained volatile organic compounds, benzene, and PCB that warranted further investigation. Likewise, the ground water testing indicated the evidence of lead, vinyl chloride, benzene, trichloroethane, and tetrachloroethane. The benzene and PCB contamination required further cleanup action.

Perth Amboy retained PMK Group of Kenilworth, New Jersey to evaluate the environmental conditions indicated by Vectre Corporation on the sites that will become the vocational-technical high school (personal communication between PMK and DEP, July 7, 1999). As of July 1999, asbestos on the General Cable Corporation property was no longer a concern. PMK Group hired contractors to remove and dispose of drums and other hazardous material prior to the demolition of the building. The AST remote fill and PCB contamination remediation were conducted post-demolition. Groundwater remediation included both the General Cable Corporation and DuPont properties. Currently, both sites are being treated as a whole site for remediation. (personal communication between PMK and DEP, July 7, 1999). Remediation of the site is ongoing, and, according to Jimenez, the specific content and level of contamination will become public only when the EPA has finished its remediation.

On July 25, 1997 the Senate Appropriations Committee, of which Senator Lautenberg (D-NJ) is a senior member, approved and adopted a \$2 million Economic Development Initiative grant for Perth Amboy. This money provided funding for the demolition, environmental testing, and remediation of the DuPont site in Perth Amboy (August 6, 1997 Press Release). The Veterans Affairs/Housing and Urban Development Appropriations Committee initially approved the grant in mid-July 1997, and it was later adopted by the entire Appropriations Committee. The city officially received the money on April 27, 1998 from the U.S. Department of Housing and Urban Development. Commencement of the entire project was on October 30, 1998 and demolition of the DuPont site officially began on January 11, 1999 by Janus-Young, J.V. Inc. of

Williamstown, NJ. (May 5, 1998, August 10, 1998, October 30, 1998, and January 11, 1999 Press Releases).

In addition, Perth Amboy also secured state aid in the form of six grants totaling \$662,586. This money stems from New Jersey's Hazardous Discharge Site Remediation Fund, jointly administered by the Department of Environmental Protection and the New Jersey Economic Developmental Authority. The grants are applied to four properties located on Rector Street, High Street, McWilliam Stadium, and Smith Street (October 27, 1997 Press Release).

On June 2, 2000 4.54 acres of the DuPont site and the 1.76-acre General Cable site were transferred to the Middlesex County Vocational Technical School System. The DuPont site cost \$1.00, and the General Cable site cost \$375, 000 in lieu of back taxes. The cost of construction of the high school and facilities is being funded through bonding provided by the Middlesex County Board of Chosen Freeholders (January 11, 1999 Press Release). Thus, the demolition, environmental clean-up, and subsequent redevelopment of the high school is at no cost to the residents of Perth Amboy. On October 18, 2000, the city held the groundbreaking ceremony for the vocational-technical high school; speakers included representatives from the Middlesex County Vocational and Technical School System, the New Jersey Department of Education, the Middlesex County Board of Chosen Freeholders, Mayor Vas, Jose Jimenez, and Douglas Slater, current principal of the Perth Amboy vocational-technical high school campus. Mr. Jimenez emphasized the beneficial impacts of the high school by pointing out that eighty-three percent of the current students at the Perth Amboy campus are actual residents of the city itself. Mayor Vas stated that the project is the result of the "...will of the people who have the authority

to make the decisions” (Program for groundbreaking ceremony, October 18, 2000). Currently, almost all of the demolition has been completed, and the sites are undergoing remediation in preparation for the construction of high school and accompanying parking and athletic facilities.

CHAPTER 3

OVERVIEW OF BROWNFIELDS REDEVELOPMENT

To fully understand brownfields redevelopment, it is important to examine both federal and state initiatives. Though it is presented as a general overview, the information pertains to Perth Amboy because it is the recipient of an EPA Brownfields Pilot program grant as well as numerous other federal and state funding listed above in the site background.

3.1 Federal Initiatives

Although environmental cleanup is required, brownfields redevelopment shifts the focus of environmental policy from strict cleanup to acknowledging the economic benefits of cleanup. According to Mark Dennison, an New Jersey environmental lawyer, “brownfields redevelopment is not driven by environmental cleanup and is not meant to be a substitute for cleanup under the federal and state Superfund programs” (1998, p. xx). Superfund refers to the moneys appropriated within the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Superfund sites must meet certain criteria to qualify for cleanup funds under CERCLA. Initial brownfields sites represented a subset of Superfund sites that either did not have extremely high levels of contamination or did not meet all the criteria for cleanup funding. Issues of cleanup liability greatly inhibited the remediation of Superfund sites, but brownfields redevelopment has taken this into consideration.

“The impetus behind federal and state brownfields initiatives is primarily an economic one, aimed at economic

revitalization of blighted urban areas that are saddled with abandoned or underused industrial and commercial properties. The focus is on those sites that can be cleaned up and returned to productive, sustainable use in a relatively short period of time and that pose lesser degrees of financial and environmental risk to potential developers and investors”

(Dennison, 1998, p. xx).

At the federal level, the Environmental Protection Agency handles brownfields redevelopment through its Office of Solid Waste and Emergency Response. On January 25, 1995, the EPA announced its “Working Draft of the Brownfield Action Agenda” that set forth various initiatives to help cities and private businesses in the redevelopment process. According to this draft, the Brownfields Economic Redevelopment Initiative “...is designed to empower states, cities, tribes, communities, and other stakeholders in economic redevelopment to work together in a timely manner to prevent, assess, safely clean up, and sustainably reuse brownfields” (<http://www.epa.gov/swerosps/bf/html-doc/econinit.htm>). There are four major activities within the EPA’s Brownfields Initiative: 1) Brownfields Assessment Demonstration Pilots, 2) clarification of liability issues, 3) partnerships and outreach, and 4) workforce development.

Since 1995, the EPA has designated over 200 Brownfields Assessment Demonstration Pilots, each of which receives up to a \$200,000 grant to “...support creative two-year explorations and demonstrations of brownfields solutions” (<http://www.epa.gov/swerosps/bf/html-doc/econinit.htm>). The EPA awards and selects national pilots through an application process and upon meeting criteria developed by

EPA Headquarters. The EPA regional offices select region-specific pilots competitively across the country. (Dennison, 1998). These pilots provide a testing ground for different redevelopment models, methods to remove regulatory barriers, methods to enhance the participation of interested parties, modes of combining federal, state, and municipal efforts, and means to further the achievement of environmental justice.

In addition to the Brownfields Assessment Demonstration Pilots, the EPA expanded its Brownfield Initiative to include other types of pilot programs. The Brownfields Cleanup Revolving Loan Fund Pilots “enable eligible states, cities, towns, counties, and tribes to capitalize revolving loan funds that will be used to safely clean up brownfields and facilitate their sustainable reuse” (<http://www.epa.gov/swerosps/bf/html-doc/econinit.htm>). The EPA enables a municipality to set up a revolving loan fund; it is a revolving loan because the loan repayment is used to make new loans for brownfields redevelopment in other areas. The Brownfield Cleanup Revolving Loan Pilots each receive up to \$1,000,000 in grant money over five years. Thus far, EPA has awarded about 140 of these pilots (<http://www.epa.gov/brownfields/html-doc/bcrlf.htm>).

Clean Air/Brownfields Pilot Partnership is designed to encourage air quality improvements through brownfields redevelopment. It is an example of intra and inter-governmental partnerships where the EPA’s offices of Air, Brownfields, and Policy have teamed up with the United States Department of Commerce’s Economic Development Agency. “The project seeks to quantify the air quality and other environmental and economic benefits of redeveloping brownfields within a city” (<http://www.epa.gov/swerosps/bf/pdf/econinit.pdf>). Cities can use this information to

devise a system of incentives and credits that enhances air quality and redevelopment concerns.

A third pilot is the Targeted Brownfields Assessment program that provides assistance to states, tribes, and municipalities to minimize the uncertainties of contamination. Through this program, the EPA provides funding and/or technical assistance at brownfield sites throughout the country. It is especially helpful for those places without EPA Brownfields Assessment Demonstration Pilots.

Although initial brownfields sites were a focus of the Superfund program, some brownfields fall within the jurisdiction of the Resource Recovery and Conservation Act (RCRA). A fourth type of pilot, RCRA/Brownfields Prevention Pilot program facilitates the cleanup of these sites. The program “is designed to develop pragmatic solutions to RCRA/brownfields issues; complement the RCRA Cleanup Reforms and help meet Government Performance Requirement Act goals; celebrate and advertise successful models; and utilize the inherent flexibility in RCRA to redevelop RCRA/brownfield properties” (<http://www.epa.gov/swerops/bf/pdf/econinit.pdf>). The first four pilots under this program were announced in 2000, with the goal being to promote future brownfields or Superfund sites by facilitating cleanup, closure, and redevelopment. Four to six more pilots are scheduled for 2001.

In order to facilitate these programs and other brownfields redevelopment efforts, EPA’s Brownfield Initiative addresses cleanup and liability issues--the second major activity. In conjunction with states and municipalities, the EPA is continually developing guidelines that clarify the liability of prospective purchasers, lenders, property owners, and others regarding their association of a site and the activities that will be performed on it.

Prospective Purchaser Agreements must meet five criteria before work can begin. Any agreement between the EPA and a prospective purchaser requires the consent of the Department of Justice. The EPA initiated comfort/status letters as a new liability protection policy on January 30, 1997. Parties that purchase, develop, or operate on brownfield properties want to ensure that they will not be pursued by the EPA for clean up of contamination resulting from previous usage. Four sample comfort/status letters address the most common of these inquiries. These letters help parties better understand the EPA's role, potential or actual, on a brownfields site. The EPA can also provide a covenant not to sue for existing contamination. The EPA has extensive statutory and regulatory provisions to address liability issues, which constitutes a thesis topic in and of itself. (Dennison, 1998).

Because of the prevalence of brownfields, the Clinton Administration further expanded the Brownfields Initiative by establishing the third component-- partnerships between public and private organizations to "...link environmental protection with economic development and community revitalization" (http://www.epa.gov/swerops/bf/pdf/97aa_fs.pdf). The Interagency Working Group on Brownfields was established in July 1996 as a forum for federal agencies to exchange information and coordinate a national brownfields partnership agenda. In 1997, the working group announced its Brownfields National Partnership Action Agenda. It consisted of over 100 commitments from federal agencies, totaling over \$400 million toward brownfields redevelopment and cleanup. In March 1998, the partnership designated sixteen Brownfields Showcase Communities and twelve more were added in

October 2000. These communities provide models to coordinate interagency efforts in brownfields redevelopment.

To facilitate the partnership process, agencies use Memoranda of Understanding (MOU) “to establish policies and procedures between agencies and support projects of mutual interest” (<http://www.epa.gov/swerops/bf/pdf/intragwg.pdf>). There are currently five MOUs between the EPA and the Department of Interior’s Rivers, Trails, and Conservation Assistance Program, the Department of Housing and Urban Development, the Department of Labor’s Employment Training Administration, the Department of Commerce’s Economic Development Administration, and the National Oceanic and Atmospheric Administration (<http://www.epa.gov/swerops/bf/pdf/intragwg.pdf>).

The EPA has also utilized the brownfields process as a means of providing job opportunities. In conjunction with community colleges and other entities, the EPA aims to “foster workforce development through environmental training, ensure the recruitment of trainees from socio-economically disadvantaged communities, provide quality worker-training, and allow local residents an opportunity to qualify for jobs developed as a result of brownfields efforts” (<http://www.epa.gov/swerops/bf/job.htm>). The Job Training and Development Demonstration Pilot program has awarded thirty-seven pilot grants since fiscal year 1998. The pilots not only cleanup brownfields sites but also prepare trainees for employment in the environmental field, including training in alternative or innovative treatment technologies (<http://www.epa.gov/swerops/bf/job.htm>).

3.2 The Brownfields Redevelopment Process

A redevelopment effort, like the one in Perth Amboy, must proceed through the following stages: site identification, initial site assessment, economic assessment, a detailed site assessment, project development and financing, cleanup planning and execution, and redevelopment of the site. Following is a brief description of each stage.

No redevelopment effort can occur without identifying an available site. Both developers and municipalities, or other interested parties, should work hand-in-hand to identify potential sites. Municipalities and parties owning brownfields can market their sites to potential developers. An inventory of brownfields, whether it be statewide, countywide, or municipality-based, will aid developers in their site search (Dennison, 1998). In addition, some brownfields projects may arise out of sheer necessity for a certain type of facility--for example, a crowded urban area may require more housing or additional schools. Site identification should be made with an intended end product in mind. Thus sites that are conducive to certain facilities or activities should be utilized for those purposes. Although the aim of brownfields redevelopment is economic revitalization, how one views the means of economic revitalization is very important.

Once a site has been identified, the second step is to conduct an initial site assessment, or Phase I investigation, in order to determine the contamination present (if any), previous owners, zoning history, prior environmental activity, any insurance coverage for hazardous substances, and the payment of hazardous waste fees or taxes in regards to the site. The initial assessment also includes a review of surrounding properties bearing similar attributes to the sites being redeveloped. The initial site assessment is relatively inexpensive, and state loans or grants may be used. Various

agencies, both public/federal and private, have delineated guidelines for performing Phase I investigations. These agencies include but are not limited to: Fannie Mae, the Federal Deposit Insurance Corporation, the Resolution Trust Corporation, the Small Business Administration, the American Society for Testing and Materials (ASTM), the National Ground Water Association, and the Environmental Assessment Association. The ASTM guidelines are the most widely used for commercial real estate transactions. (Dennison, 1998)

The third stage, an economic assessment, is conducted to determine the development potential of sites--those sites that can attract buyers and users versus sites that have no interested buyers and few uses. "As with any investment, the expected return on the brownfields redevelopment project must be commensurate with the risk involved" (Dennison, 1998, p. 144). Sites are divided into three categories--viable sites, threshold sites, and nonviable sites--to determine whether the risk of redevelopment is worth the effort. "Viable sites are sites that are already economically viable and which the private market is already taking steps to redevelop" (1998, p. 144). There is either a low risk of liability or very high potential rates of return. Viable sites require little or no public capital for development. "Threshold sites are sites that are only marginally viable and will not be redeveloped without some type of public assistance" (1998, p. 145). These sites may have fewer potential rates of return and higher liability risks and thus need additional public assistance. "Nonviable sites are sites that have strong potential for environmental liability and/or minimal economic advantages" (1998, p. 145). Brownfields redevelopment usually does not focus on these sites.

The fourth stage, a detailed site assessment or Phase II investigation, is conducted if the Phase I investigation suggests contamination. There are no widely accepted and adopted guidelines for Phase II investigations. An initial Phase II environmental site assessment and expanded Phase II environmental site assessment is conducted as various rounds of sampling warrant their need. “A more aggressive Phase II investigation provides more complete decision-making data early in the transaction” (Dennison, 1998, p. 157). Data includes: cost for cleanup, cleanup objectives and effects, timeline cleanup activities, and an estimate of the net worth of the property. Cleanup efforts are both above ground and underground. An environmental risk assessment may be performed by contracted companies if a Phase II investigation is required. This assessment weighs costs and cleanup options against health and environmental risks associated with different levels of cleanup (1998).

After the completion of the steps mentioned above, the development of the brownfields project and financing for cleanup and redevelopment is necessary. Various stakeholder meetings may also be held. With financing in place, site remediation is executed. Finally, the site is altered to meet the redevelopment needs.

3.3 New Jersey Brownfields Initiatives

New Jersey conducts a majority of its brownfields work through either the Department of Environmental Protection’s Site Remediation Program or the Office of State Planning. The Department of Environmental Protection (DEP) promotes redevelopment through its Voluntary Cleanup Program, which links responsible parties, developers, local officials or individuals with the DEP. Under this program, the party conducting the cleanup

participates in a non-binding agreement, a Memorandum of Agreement, with the DEP to develop the scope and schedule of the remediation (http://www.state.nj.us/dep/srp/brownfields/site_reuse.htm). Activities range from preliminary assessment and site investigation to the actual steps needed for cleanup.

With the MOA, the cleanup party agrees to pay DEP's oversight costs for a chance to have a DEP Case Manager review site assessment and cleanup results quickly and to provide recommendations based on these results. Oversight costs may vary between \$1500 to \$10,000 depending on the amount of contaminant that needs to be removed and the number of site visits required to do so. DEP issues a No Further Action letter once cleanup is done to its satisfaction. Because of its voluntary nature, a party can terminate the MOA at its convenience, even with areas that have not been remediated so long as they do not pose immediate health risks. In addition, if a deal falls through with the DEP, the party does not have to complete the cleanup. (Dennison, 1998).

Remedial action must comply with New Jersey's Technical Requirements for Site Remediation. The Ground Water Quality Standard and Surface Water Quality Standard, along with soil cleanup guidelines, provide use-based criteria for cleanup. In some cases, the use of the site may not require permanent removal of all contaminants. The DEP requires that engineering and/or institutional controls be placed on such sites. A Declaration of Environmental Restriction is a required institutional control, while areas with ground water contamination require a Classification Exception Area when standards have been exceeded. Areas where tidal and freshwater wetlands were filled to create land also may not warrant complete removal of the contaminated fill. Here, encapsulation of

the fill is fine so long as human health and the environment are protected (http://www.state.nj.us/dep/srp/brownfields/site_reuse.htm).

New Jersey provides its own loans and grants, apart from or in conjunction with federal monetary assistance. Through the Hazardous Discharge Site Remediation Fund, created in 1993, a municipality can apply for up to \$2 million per year to conduct site investigation and cleanup activities. The New Jersey Economic Development Authority works with DEP to finance grants and loans by covering eligible costs and providing loan servicing. Grants are awarded to municipalities with the specific intention of conducting a preliminary assessment and site investigation when the municipality holds the tax sales certificate, has foreclosed or voluntarily acquired a property for redevelopment. Municipalities that own the property may procure money to proceed with the remedial investigation. If after the preliminary assessment, site investigation, and remedial investigation, a municipality wishes to go forth with cleanup activities, low interest loans are available. The data from these activities provides cost estimates for cleanup work required at a site and thus contributes to the property's marketability (Dennison, 1998)

Private parties required to conduct remediation and individuals that wish to voluntarily do so can also obtain loans of up to \$1 million per year if they cannot procure private monies. Since the inception of the Hazardous Discharge Site Remediation Fund, over \$56 million has been awarded as grants and loans. This money stems from a \$75 million dollar fund created with the unused portion of a state Hazardous Waste Bond issue and a part of the Economic Recovery Fund. Municipalities have received 82 grants and loans, while businesses have received 54 grants and loans (Dennison, 1998).

The state also provides liability protection to local government. Provisions to the New Jersey Spill Compensation and Control Act eliminate liability for past contamination for government entities that acquire properties through condemnation, foreclosure, or similar means. Such protection encourages municipalities to take title to properties and conduct preliminary assessments, site investigations, and remedial investigations. Lending institutions have been freed of liability when providing assistance to industrial redevelopment efforts. Some developers in certain municipalities receive protection of liability from third party costs if they have not caused the contamination and have cleaned the site according to DEP regulations. In addition, the DEP urges any redevelopment effort to meet EPA cleanup standards so as to prevent future liability from the EPA (http://www.state.nj.us/dep/srp/brownfields/site_reuse.htm).

A major step towards liability protection occurred with the passage of New Jersey's Brownfield and Contaminated Site Remediation Act, signed into law on January 6, 1998. This law amends the Hazardous Discharge Site Remediation Act, the Spill Compensation and Control Act, the Industrial Site Recovery Act, the Environmental Opportunity Zone Act, and other statutes by "protecting buyers of tainted sites from private lawsuits and from having to perform additional cleanup work, both related to past contamination problems, if they clean up the site in accordance with NJ DEP regulations" (<http://www.state.nj.us/dep/srp/publications/brownfields/1998/98brownf04.htm>).

The Brownfield and Contaminated Site Remediation Act also establishes the Brownfields Task Force to coordinate state brownfields policy. Staff from the New Jersey Office of State Planning makes up the Task Force. It consists of two committees: the Policy and Legislative Committee and the Marketing and Data Committee, each of

which meets every three months on a rotating schedule in Trenton, where the office is located. The Task Force holds quarterly meetings throughout the state to promote local brownfields efforts (<http://www.state.nj.us/osp/brownfld/brownrtf.htm>).

CHAPTER 4

PUBLIC PARTICIPATION

Although brownfields redevelopment is constructed primarily as an economic means of urban revitalization, both the EPA and New Jersey acknowledge public participation (or community involvement) as a part of the process. According to the EPA, “public participation is a key component to any brownfields project. We provide citizens with information on upcoming meetings and deadlines as well as recent announcements, press releases, and speeches” (http://www.epa.gov/epahome/public_0824.htm). EPA’s Region 2 office (the regional office to which New Jersey belongs) provides its views in “Public Participation: EPA Region 2 Brownfields White Paper.”

This document focuses on community organizations or community development corporations that “...create economic or affordable housing opportunities within a specific community or with respect to a specific, large site” (<http://www.epa.gov/region02/superfnd//brownfld/whitepap.htm>) as the mode of public participation. Participation is constructed in the context of securing private and public sector resources for redevelopment. The New Jersey DEP also recognizes the importance of public participation by advocating that the community be included early in the process and by providing “key parties--residents, local officials, developers, businesses, the lending community--with the necessary support to stimulate real community success” (<http://www.state.nj.us/dep/srp/brownfields/community.htm>). Recognizing and advocating public participation is useless if those recommendations are not put into practice.

According to Brian Back (2000, pg. 4) in his article “You call this a showcase?” “within a one-mile radius of the average brownfield, 35% of the residents are minorities and 25% of the residents are below the poverty level.” Thus, placing notices and announcements on the Internet is not adequate public participation if those people affected by brownfields redevelopment do not necessarily have access to the Internet. Perth Amboy’s redevelopment effort fosters collaboration between the city and the Middlesex County Vocational Technical School System (MCVTSS), but not necessarily one between the city, MCVTSS, *and* the residents. Residents were notified in 1998 after the decision had been made to build a vocational-technical high school and thus were not included from the inception of the project. Though the city did provide notifications and press releases, and held public meetings, the actual level and impact of resident input was unclear. Meetings with Helga Crowley, director of the Perth Amboy Redevelopment Agency, and Jennifer Scortino, the mayor’s public information officer, indicated great support and enthusiasm for the project--but the important question is *whose* support and enthusiasm.

4.1 Participation, Trust, and Equity

Determining who constitutes “the public” is integral to any discussion of public participation. According to Jessica Glicken, a consultant at Galisteo Consulting Group which provides management and business communications consulting, public participation is “the inclusion of interested parties in the making of public decisions” (Glicken, 1999, p. 4), while Nancy Spike, an assistant professor at Duquesne University Law School, defines it as “purposeful activities in which citizens take part in relation to the government”

(Spyke, 1999, p. 3). Spyke's emphasis is more on environmental decision-making while Glicken refers to public decisions in general. Spyke breaks public participation into four elements: "the purpose for which the participation is undertaken, the type of action that is undertaken, the individuals who are involved in that action, and the governmental entities that are targeted" (Spyke, 1999, p. 3). The public can range from individuals, to groups, to even institutions. In brownfields redevelopment, the public may be the immediate neighborhood surrounding a site (as is the case with this study), the municipality in which the site is located, the users of a redeveloped facility (the students attending the vocational-technical high school perhaps), the county, or the state. Thus, defining the public becomes an issue of geography and scale. This is not true for all forms of public participation, as when voting in a national election. In brownfields redevelopment, the public is often referred to as a stakeholder, "an individual or a group influenced by--and with an ability to significantly impact (either directly or indirectly)--the area of topical interest" (Glicken, 1999, p. 7).

Public participation is important for brownfields because of concerns over risk and trust. Experts and the lay public perceive risk differently. The lay public tends to view risk in terms of human health (cancer risk from airborne toxics) rather than environmental risk (the detriment of airborne toxics on fresh water). Residents A and B, participants of the case study in Perth Amboy who wish to remain anonymous, expressed concern that Perth Amboy did not place signs to warn the residents not to let their children or pets play on the site during demolition and remediation. Their property borders the former Cable Works Corporation property. A and B noticed groundwater seeping to the surface. "Our ground was always wet. Even during the driest of times, and especially in certain

areas. When we first moved here in 1982, we had a rock and gravel driveway. Then over the years the ground became wetter and wetter, and now we have grass and moss!” (personal communication, March 17, 2001). Because Residents A and B were not told about this groundwater, their lack of trust in the city may exaggerate concerns over contamination risk.

Trust amongst diverse stakeholders is an important element of public participation because of their mutual dependency on one another. Pritha Gopalan, who specializes in educational anthropology and has conducted field research in India and the United States, explicitly states that “there is no participation without trust” (Gopalan, 1997, p. 2). Public participation is thus a teaching and learning process for both the initiators of participation and those actually participating. Gaining trust is easiest when there is an overall vision of what the decision-making process should accomplish. Different and new ideas may not fare well if the various participants do not believe that each person is looking out for the overall best interest. Though Perth Amboy and MCVTSS may actually have the best intentions of the community in mind, residents may not feel this way since they were not included in the decision to build the high school.

Inherent in this vision of the decision-making process is understanding that certain elements can be changed and others cannot. “Elements that cannot be changed include the community’s physical structure, its history, and the constellation of agents working in it” (Gopalan, 1997, p. 4). Physical structure and history are especially important for brownfields redevelopment. Location of a brownfield site within a municipality and the municipality itself somewhat dictates the type of redevelopment that can occur. Municipalities located near major transportation arteries, such as railways or ports, may be

better suited for a warehouse than a more rural area. Economic viability should not supersede physical realities.

Since an area's history is integral to its identity, decisions that may threaten or drastically alter this identity can make it hard to elicit public participation. An understanding of past methods used to garner public participation (if they existed at all) is therefore useful. Cultural sensitivity, coupled with history, also promotes better participation. In her research about the planning and community development of Mercer County, North Dakota, Caroline Tauxe finds that "of particular importance is the fact that those whose interests the development threatened most. . . .tended to use the local style, and were thus systematically disempowered by the formal planning process, so that their voices carried less weight in decisions" (Tauxe, 1995, p. 2). Such sensitivity is especially pertinent to Perth Amboy because a majority of the residents are Hispanic or Latino. Thus, translating public notices and meetings into Spanish may elicit better participation if the people are able to understand the information.

Furthermore, the notion of cultural sensitivity can also include the pre-existing agencies and entities within a neighborhood, community, or municipality. A neighborhood organization located near a brownfields site cannot be ignored in any decision that affects the site. Likewise, federal and state programs cannot ignore local redevelopment agencies. An EPA-funded pilot is best carried out by the local redevelopment agency, and may even fit into an existing redevelopment plan--as Perth Amboy has done through its Focus 2000 redevelopment plan. Effective decision-making and public participation are cognizant of these factors.

In addition to elements of the community that must remain unaltered, Gopalan also cites elements that can be changed. These include “the design of programs, the community’s feelings about outs and weakness in the leadership, among other things” (Gopalan, 1997, p. 4). Flexibility in the design of a redevelopment project is extremely important since the original idea or plan, especially one designed by an outside party, may not be suitable for a number of reasons. If changes are necessary, those who are directly impacted should be included in the redesigning of the plan. By allowing for this flexibility, the public assumes the role of the educator by showing plan/program initiators what works and what does not. Such mutual respect and reciprocity between the various stakeholders forges trust and participation.

Design flexibility is a vital consideration for Perth Amboy’s redevelopment efforts. Because the original idea to construct the vocational-technical high school was agreed upon without citizen consent, it will not be surprising if the residents, especially those bordering the site, express ambivalence and resentment. For example, Residents A and B did not attend the groundbreaking ceremony of the vocational-technical high school, even though it was held right behind their property, because they were frustrated with the city. “Our situation would have been different if we had a little more consideration from the city--not only us here, but the entire neighborhood. We want the city to be a good neighbor to us, that’s all” (personal communication, March 17, 2001).

Trust can be fortified with strong leaders, whether they are community leaders or political leaders. Outside agencies will find it hard to forge alliances without the support of internal leaders. Weak leaders can inhibit or altogether jeopardize programs. Brownfields redevelopment is hindered if local leaders do not act as proper liaisons between their

constituents and the state/federal governments. When there are multiple, strong leaders broad-scale participation can be engendered by forging trust and reciprocity with strong insiders (Gopalan, 1997) This study of Perth Amboy assumes that Mayor Vas plays an integral role in the city's redevelopment because he is a long-time resident of Perth Amboy. In fact, Residents A and B attended high school with the mayor and refer to him simply as "Joe".

Equity is another important consideration for public participation, especially linked with the environmental justice movement. Environmental justice "claims that a lack of power among poor and minority communities has saddled them with disproportionate burdens both in pollution and in environmental policy implementation" (Foreman, 1996, p. 2). Environmental justice links pollution, race, and poverty in an effort to mobilize disenfranchised communities. Prominent among the advocates is Robert Bullard, who has spent nearly fifteen years documenting cases of environmental injustice. Former President William Clinton signed into effect Executive Order 12898 in February 1994 "requiring federal agencies to consider the effects of their activities on the distribution of environmental impacts in the population" (Helfand & Peyton, 1999, p. 68). The Environmental Protection Agency now has an Office of Environmental Justice and the Office of Solid Waste and Emergency Response has made environmental justice a top priority. In addition, former EPA administrator Carol Browner appointed the National Environmental Justice Advisory Council (NEJAC), on which Robert Bullard participates. The National Brownfields Environmental Justice/Community Caucus stresses that "all brownfields stakeholders should aggressively pursue strategies that deliver equity to those

who are most affected by brownfields properties” (<http://www.cpeo.org/pubs/reccom.html>).

4.2 Recommendations for Public Participation

Both the NEJAC and the National Brownfields Environmental Justice/Community Caucus provide recommendations for public participation. NEJAC’s report *Environmental Justice, Urban Revitalization, and Brownfields: The Search for Authentic Signs of Hope—A Report on the “Public Dialogues on Urban Revitalization and Brownfields: Envisioning Healthy and Sustainable Communities”* (Lee, 1997) differentiates between community-based and developer-based participatory approaches. In a community-oriented approach, the community is involved in the redevelopment process, and its needs are being considered. “Community-based planning has the flexibility to confront problems in the context of the region, the ecosystem, the city, or the neighborhood in which they occur” (Lee, 1997). On the other hand, the developer-oriented approach minimally considers the input of the community. Instead, it focuses on meeting the goals of the developer (which are usually economically driven).

The NEJAC’s recommendations advocate a community-oriented approach. The recommendations are subdivided into three categories related to urban revitalization/brownfields: 1) public participation and community vision, 2) key issue areas (such as equal protection, job creation, environmental health), and 3) public and private sector partnerships. Public participation must be both informed and empowered. According to NEJAC, this is accomplished by “establishing ‘storefront’ type clearinghouses and repositories of information, holding meetings at convenient times and

locations, providing for translation, building upon existing social and cultural networks, and making an effort to truly consider the advice offered by the community” (Lee, 1997). NEJAC stresses the importance of community participation from the beginning to the end of the redevelopment process, rather than included as an afterthought. The NEJAC considerations were used in constructing the survey utilized in this thesis.

Not surprisingly, the National Brownfields Environmental Justice/Community Caucus also espouses a community-based participatory approach in which “the community shall determine when, where, and how Brownfields projects are initiated and finished” (<http://www.cpeo.org/pubs/reccom.html>). The caucus believes the community should be supplied with the information, resources, and opportunity to participate. Similar to Gopalan’s suggestions of cultural sensitivity, the caucus also advocates that the culture and identity of a community be protected. To further the inclusion of the community in the participation process, the caucus recommends that community-based, non-profit organizations be established. These organizations initiate and implement brownfields redevelopment projects “...where local government is unwilling or unable to sponsor revitalization activity desired by the community, or where local government is unwilling or unable to offer minimal levels of direct community” (<http://www.cpeo.org/pubs/reccom.html>). Thus, a municipality need not be the central vehicle conducting redevelopment and through which financial assistance can be procured. This is not the case with Perth Amboy, where the city is the main entity directing brownfields redevelopment

To really appreciate these recommendations, one must understand the difference between process and outcome. Is public participation beneficial simply because it can be

done or because a desired outcome is generated? The answer to this question can dictate at what stage the public should be included in the decision-making process. Cheryl Simrell King, Kathryn Feltey, and Bridget O'Neil Susel, through their research in public participation and public administration, have coined the term "authentic public" participation "...that is participation that works for all parties and stimulates interest and investment in both administrators and citizens" (1998, p. 2). Authentic participation stresses both process and outcome. "...The public is part of the deliberation process from issue framing to decision making" (Simrell King et al., 1998, p. 6). By including the public from the very beginning, public participation does not become an "add-on" at the end of a project to fulfill legal mandates.

In defining the success of brownfields redevelopment, process versus outcome is a critical issue. For the most part, any form of redevelopment that contributes to the overall economic vitality of a municipality is successful. If only the outcome defines success, then public participation is only a means by which parties initiating development gain support (or at least dissuade opposition). When the process of redevelopment is as important (if not more) than the outcome, public participation is meaningful and effective. "Members of the community (the residents and others most affected by brownfields or revitalization), not project proponents, shall define success" (<http://www.cpeo.org/pubs/reccom.html>). Thus, there is no such thing as "negative" public participation. Instead of stagnating a brownfields project, opposition to redevelopment efforts can allow for more input from the public so that their needs are accounted for.

This issue of process versus outcome is extremely pertinent to Perth Amboy's efforts. Residents may indeed feel that their input, solicited late in the redevelopment process, is merely fulfilling public participation mandates. From their viewpoint, the project is not necessarily a success--even though a vocational-technical high school is beneficial to the city. According to Residents A and B, "positive things are really happening in the city, but that's in the *big* picture. [When trying to get information from the city regarding the groundwater and damage to our property], we've experienced here that if you are not part of the solution, you are part of the problem" (personal communication, March 17, 2001). Here, the redevelopment process hasn't necessarily created meaningful public participation.

Meeting the public's needs and fostering process-oriented participation requires a vision. Through their work at the Program for Community Problem Solving, William Potapchuk and Jarle Crocker have devised the concept of "civic capital", "...the collective civic capacities of a community" (1999, p. 1). Civic capacity is the result of a shared and motivating vision for the future. Because various entities interact in public decisions, each must commit to the vision and work together through any problems. A vision cannot be created without open communication and adequate meeting places for the various parties involved. There must be a basic infrastructure in place that helps create and sustain the vision (and allows for change if necessary).

The Focus 2000 Redevelopment Plan is Perth Amboy's new vision. This vision is the product of Jacobs Environmental, Inc.'s research that includes feedback from: "meetings with the mayor and mayor's aide, site visits...interviews with current and former Perth Amboy residents and consumers, and meetings with the County

Improvement Authority team” (Jacobs Environmental Inc., 1997). Feedback from all the stakeholders adds validity to the vision because each stakeholder may feel “responsible” to live up to the vision if his/her input was genuinely considered to create the overall vision. A vision is important for brownfields redevelopment because “without a clear understanding of the community one wants to create, achieving it can be difficult” (Potapchuck and Crocker, 1999, p. 2). The actual process of achieving the vision is what fosters meaningful participation, and especially so if there is flexibility in the redevelopment plan, as previously stated.

4.3 Models of Public Participation

Public participation models from the land use and planning profession can be applied to the efforts of brownfields redevelopment since it is a type of land use planning. Throughout this section, these models have been compared and contrasted to Perth Amboy or brownfields in general. In most cases, the recommendations from these models echo the general recommendations for public participation outlined above.

Participatory democracy theory builds upon a notion of democracy in which a multitude of stakeholders’ responses is included in decision-making. Margaret Moote, Mitchel McClaran, and Donna Chickering studied a Bureau of Land Management resource area manager’s use of coordinated resource management as a participatory democracy model. In utilizing participatory democracy theory, “. . . a broad range of interests are represented and participants are integrally involved throughout the planning process, from initiation through decision implementation and monitoring” (1997, p. 877). The focus is on the non-activist, nonaligned public. Moote et al. does not explicitly define what

constitutes non-activist and nonaligned, but it can be inferred that the aligned/activist public have some form of political affiliation (by either being an elected official or a member of an interest group). Education of the issue is fostered via a collective process where everyone involved shares information so that each person holds responsibility for a policy decision. Informal forums allow participants to voice their different needs. The administrator in participatory democracy does not make the decision but instead facilitates the process.

Moote et al. identified five issues within public participation that were used to explicate the application of participatory democracy theory. These issues are efficacy, representation and access, information exchange and learning, continuity of participation, and decision-making authority. Efficacy, as defined by Moote et al., “is the extent to which a public participation process fosters public support of a decision and thereby expedites implementation of that decision” (Moote et al., 1997, p. 878). Efficacy is used to determine how closely one achieves a desired result, while the remaining four issues relate to the process of achieving that result--or process versus outcome. In Moote et al.’s study, however, it is assumed that the outcome of a decision can be altered depending on how the other four issues are applied, whereas with Perth Amboy the outcome, the vocational-technical high school, remains fixed. Nonetheless, these five issues were among the concepts used to create the survey.

The advisory committee is another tool employed in land use and environmental decision-making. Liette Vasseur, Lise Lafrance, Colette Annseau, Dominique Renau, Daniel Morin, and Therese Audet (1997) analyzed the effectiveness of an advisory committee to recommend a sewage sludge management strategy. Although conducted in

Lac-Megantic, a province of Quebec, Canada, the results of the study are useful for any locality. For Lac-Megantic, “the role of the advisory committee is to explore different solutions for the environmental problem at the consultation and recommendation levels” (1997, p. 360).

Five groups of people--municipal intervenors, governmental representatives, economic intervenors, environmental groups, and citizens--were chosen to participate on the advisory committee. These groups were determined from a sociodemographic study, using information from local newspapers, regional resource directories, and contacts with local people. Criteria used to identify the groups were: “. . . the representation of the different important interest groups and the respect of the equilibrium between experts and the general population, organized groups, individuals, economic intervenors, and private citizens” (Vasseur et. al., 1997, p. 362). Although all the individuals encompassed within these groups were invited, participation was voluntary.

The mandates of the committee were developed prior to the formation of the committee, in consultation with the municipality. The committee held various meetings to disseminate information regarding sludge waste and strategies for its management. The committee agreed on five recommendations for sludge waste management, which were adopted in May 1995. The study thus views the advisory committee as an important tool in environmental decision-making.

Such an advisory committee, however, is an ineffective participation method for brownfields redevelopment. Vasseur et al. state that the committee “does not have the power to make final decisions as this is the power of the municipal policy makers” (1997, p. 360). With such broad representation on the committee, too many groups that may not

be localized enough to the brownfields site may skew policy recommendations. If the municipality is making the ultimate decision, then those within its boundaries--and immediately affected by the site--should have greater say on the committee than outside developers or environmental groups. Because participation is voluntary, one group may over-represent another, and it may not necessarily have the community's best interests at heart. Brownfields redevelopment is a collaborative effort, as Perth Amboy and the MCVTSS have demonstrated, but one group alone cannot make the final decision--a decision whose effects can extend beyond the current place and time.

A major concern for nearly all types of environmental decision-making is the technical and scientific information that often hinders the participation of the public. For brownfields redevelopment, site contamination and clean-up issues can be too technical for the "average" person to understand, and decisions may be delegated to experts. To account for this, Frank Laird, Assistant Professor of Technology and Public Policy at the University of Denver, puts forth participatory analysis as a participation method that mandates a special learning process for technical/scientific issues. Instead of merely acquiring facts, participants learn to "understand the differing interpretations that one can draw from the facts and think of ways to chose among those interpretations" (1993, p. 12). On another level, participatory analysis enables people to challenge the validity of facts and understand how data is influenced by the policy question at hand. Ultimately, participatory analysis allows "people to decide for themselves what the most important questions are" (1993, p. 13).

It must be noted that participatory analysis does not disregard the input of experts. Rather, it advocates that "participants must structure their relationships to experts in such

a way as to avoid losing their democratic prerogatives” (Laird, 1993, p. 12). Participants must learn from experts, but also realize that the information presented may be a combination of fact and values. The most important goal of participatory analysis is that the participants learn from the process so that they form their own views about an issue rather than accepting an expert’s view at face value.

Participatory analysis assumes that participants are given adequate information to make proper decisions. Residents A and B expressed concern that they were not told about the groundwater contamination of the Cable Works property. While doing their own research at the DEP, both stated that they could not understand many of the technical documents so they did not necessarily know if something was a genuine cause for concern. Because the high school will have constant human activity, it is important that the residents understand the technical and scientific issues of redevelopment. If they are not given this information, they may believe that either something is being hidden from them or that contamination risks have not been properly addressed.

Understanding what models of public participation are best suited to a community’s needs is easier with a vision, as Potapchuck and Crocker advocate. Constructing that vision is a participation exercise in itself. Though Jacobs Environmental, Inc. did solicit resident input, it is unclear exactly how much influence they had in contributing to Perth Amboy’s Focus 2000 Redevelopment Plan. Cy Behroozi uses the concept of smart growth to promote the citizens’ jury and the Visual Preference Survey as two methods of achieving a community vision. Smart growth development aims to improve the quality of life in cities, suburbs, and rural areas by promoting planning that “is town-centered, transit and pedestrian-oriented, and has a greater mix of housing,

commercial, and retail uses” (2000, p. 1). Brownfields redevelopment is a type of smart growth planning.

The citizens’ jury process allows a group of diverse residents to critique smart growth plans for five days. Experts from the planning profession present their plans to the panel of residents. The jury then makes its recommendations based on the information and testimony of the experts. Thus, the citizens’ jury employs participatory analysis to reach its goals. On the other hand, the Visual Preference Survey is a less technical means of understanding citizen acceptance of smart growth plans. Survey participants are asked to choose between urban, rural, and suburban landscapes for their appropriateness within the community. The results are quantified and used to measure acceptance of different types of plans (Behroozi, 2000). Such a survey can be very useful in brownfields redevelopment because the type of redevelopment may better correspond with resident preferences. Of course, redevelopment is limited by the physical characteristics of an area where not every locality can accommodate rural landscapes. Perhaps, the vocational-technical high school would not be an option if the Visual Preference Survey had been conducted in Perth Amboy.

CHAPTER 5

METHODOLOGY

Based on the issues concerning public participation as a whole, and specific to brownfields redevelopment, there is still room for improvement. Public participation is not an easy task, but it can be especially difficult for brownfields projects because of risk, the technical knowledge needed to understand contamination and removal, the multitude of stakeholders, and the time lapse from project initiation to realization, among other factors. Though provisions for public participation exist, how they are executed is crucial. A truly engaging and continuous participation process that allows the public to direct redevelopment is the measure of a successful brownfields project. In order to accomplish this, the initiating agency has to encourage participation, and the people have to participate--they are mutually dependent. No matter how hard public participation is encouraged and sought, participation is ineffective if the people do not partake. Likewise, it is ineffective if the people are eager to participate, and there is no means for them to do so.

5.1 Research Objectives and Assumptions

Studying participation efforts in brownfields redevelopment contributes to the base of knowledge in the environmental movement as a whole, the environmental justice movement, and in particular the arena of participatory-democratic theory. This study asserts that participation is a necessary component of redevelopment and not an afterthought to appease public discontent. This study analyzes the participation process in the redevelopment of Perth Amboy through the construction of a vocational-technical high

school in hopes of providing guidelines for other cities engaged in brownfields redevelopment.

5.2 Hypothesis

For the purposes of this study, a successful brownfields project is one that focuses on both process and outcome. No matter how beneficial the outcome, a project cannot be considered a success if it has not included meaningful public participation (<http://www.cpeo.org/pubs/reccom.html>). Perth Amboy notified its residents about the vocational-technical high school *after* it had made the decision to partner with MCTVSS. According to Rebecca DePiertropaolo, “developers who involve the community early in the program and communicate their intentions always do better” (1998, p. 6). Thus, this research hypothesizes that Perth Amboy residents will not consider the vocational-technical high school a successful brownfields project because they were not included from the start of the decision-making process.

5.3 Study Population

Because redevelopment is limited by where a site is located, the issues of location and scale are very pertinent to brownfields. As the scale of location descends from the state to municipality to the specific neighborhood, the scope of who participates also changes. On one hand, everyone has a stake in brownfields redevelopment since it enhances economic vitality. However, this study asserts that those residents living near a site will be more active in its redevelopment since they are likely to be more affected. With that in mind, only those residents/businesses within a 500-foot radius of the vocational-technical high

school are included in the research. This radius is confined to the delimitation provided by the city tax assessor's office, provided property lists within 250, 500, and 1000-foot radius of the redevelopment sites. A 250-foot radius yielded only seventy properties, while the amount of properties within the 1000-foot radius would have exceeded budget and time constraints. Within the 500-foot radius are 153 properties, five of which are designated "riparian rights" (piers along the waterfront), thus leaving a total of 148 properties. The properties are categorized into the following classes: 4C (apartment), 4A (mixed use--residential/commercial), 4B (industrial), 15C (tax exempt--school or church), 15D (tax exempt--church), 1 (vacant), and 2 (residential--one and two family homes). Table 5.1 shows the breakdown of properties.

Table 5.1: Classification of properties

Property Class	Number of Properties
4C	8
4A	30
4B	11
15C	2
15D	6
1	17
2	79

Eighteen properties are vacant (one of the 15D properties is both tax exempt and vacant), thus leaving 130 properties for the study. These properties are located on the following streets: State Street, Washington Street, Mechanic Street, Dekalb Avenue, High Street, Buckingham Avenue, Hartford Street, and Pearl Place (refer to Figure 2.2).

The study employed survey research methods to measure the public's satisfaction with brownfields redevelopment. The list of properties provided the basic study population. Because some of the properties were mixed use or multiple dwellings, it was

necessary to determine exactly how many people would receive the survey. Since the list stems from the tax assessor's office, it indicates property owners who may not necessarily live or work at the indicated property or even in Perth Amboy. With the aid of Middlesex County Street Address Directory & City Guide, (June 2000) a reverse phone directory in which addresses are grouped by street not name, a list of people living at each address was constructed. In some cases, the reverse phone directory simply listed "occupant" and in other cases the property address itself was not listed in the reverse phone directory. In the case of residential homes (class 2), names were taken from both the property list and the reverse phone directory. It is assumed that the owner and resident for a residential property are one and the same. The reverse phone directory also delineates businesses, yielding 20 for the designated area of study. Because the names of businesses and residents can change over time, some properties may have received multiple surveys. The phone directory and property list together yielded 263 names, either of individuals or businesses. This number was reduced to 231 by collapsing what is assumed to be married couples (i.e. Maria Alvarez and Antonio Alvarez counted as one unit). Finally, in cases where a name could not be obtained, the survey was addressed to "current resident."

5.4 Survey Design and Administration

In consultation with various academics, the survey went through eight iterations before it was finalized. It consisted of thirty-two statements and a "general information" section. Answers to the statements were either "yes or no" for action-oriented statements or a list of five choices in a Likert scale format (strongly disagree, disagree, neutral, agree, and strongly agree) for all but one of the remaining statements. The exception is a question

that asked respondents to choose their method of participation from five choices. Another question asked the respondents to rank the type of redevelopment they would have preferred from a list of sixteen options (see Appendix B for the complete survey). General information was used to determine population characteristics. A test-pool of three people critiqued the survey before it was administered. Each person had no relation to the brownfield site, Perth Amboy, or even the program for which this study is undertaken thus providing a completely unbiased critique of the survey. The test pool represented “the public” and any confusion or misunderstanding by the test pool was corrected prior to disseminating the survey. Because Perth Amboy has a large Hispanic and Latino population, the survey was translated into Spanish to engender more responses.

The survey statements were divided into four categories: awareness (statements 1-6), public participation (statements 7-19), city responsibility (statements 20-24), and trust/satisfaction (statements 25-32). As mentioned before, the survey is included in Appendix B. First, the public must be aware of an issue to be concerned (Glicken 1999; Lee 1997; Simrell King et al. 1998; and Spyke 1999). Once aware, the public will participate providing adequate effort is made to include its views. Statements under this section referred to both the respondent’s initiative to participate and Perth Amboy/MCVTSS’ means of facilitating participation (Glicken 1999; Laird 1993; Lee 1997; Moote et al. 1997; Simrell King et al. 1998; Spyke 1999; Tauxe 1995; and Vasseur et al. 1997). City responsibility refers to Perth Amboy’s efforts to promote awareness of the issue and encourage participation (Glicken 1999; Lee 1997; Simrell King et al. 1998; and Spyke 1999). These three sections lean more toward the “process” of

redevelopment while the trust/satisfaction section leans more toward the final outcome--the vocational-technical high school (Gopalan 1997 and Moote et al. 1997).

Both an English and Spanish survey were sent on January 29, 2001 to each of the 231 people, totaling 462 surveys. Return postage was provided on each survey, and both were enclosed in an envelope. The survey was formatted into an eight-page booklet, with the researcher's return address printed on the last page, so that it could be easily folded, taped, and mailed back. Because people will fill either the English or the Spanish survey, all the surveys were coded according to the property name and survey recipient. An English and Spanish survey sent to each individual had the same code number. This way, survey respondents could be identified for follow-up and duplicate surveys from the same person could be accounted for. Although the respondent's actual name is not necessary, the identification helped minimize confusion if an individual sent back both the English and Spanish versions of the survey. It also helped verify property class.

On February 23, 2001, approximately a month after the survey was initially mailed, 172 follow-up postcards, with both English and Spanish instructions, were sent to those people who had not responded (see Appendix C for a sample of the postcard). The postcards instructed respondents to call the researcher if they had questions filling out the survey or if they needed another copy. The postcards were also coded according to the same numbers as on the initial surveys.

As a result of this follow up, two Perth Amboy residents contacted the researcher about their experiences concerning the construction of the vocational-technical high school. They agreed to take part in an in-depth interview (some of their comments have already been incorporated into the Public Participation section of the thesis). Residents A

and B own a home bordering the Cable Works site. Their concerns regarding groundwater contamination, demolition, and remediation of the site could not be adequately expressed through the survey. The specifics of the case study are presented in the proceeding sections. With the help of Resident A, a final attempt on March 31, 2001 was made to generate more survey responses by going door-to-door along the streets to those properties that still had not responded. These residences are within the 500-foot radius. Resident A's fluency in Spanish helped put some of the residents at ease, and thus sixteen more surveys were distributed with postage included.

5.5 Response Rate

Thirty-two surveys were returned, yielding a fourteen- percent response rate. Not all of the questions were answered on each survey, and one survey was sent back with questions 7-32 unanswered. All of the streets falling within the 500-foot radius were represented in the responses, except for High Street. Table 5.2 depicts the number of surveys returned after each distribution attempt.

Table 5.2: Total survey yield over time

Survey Distribution Attempt	Number of Returned Surveys
Initial mailing	22
Follow-up postcards	4
Door-to-door visits	6
Total	32

During the door-to-door distribution, it was observed that nearly all of the Hispanic or Latino residents were adamant about not divulging their names. They had to be assured of the survey's confidentiality numerous times before they would consider

completing a survey. Initially, it was assumed that these residents had strong negative feelings regarding the redevelopment and believed that somehow Perth Amboy would become aware of their individual opinions. However, Resident A believes that some of the people are either illegal aliens or harboring illegal aliens, and thus are uncomfortable with giving out their names because of the legal implications. The last two questions of the survey inquire about the respondents' voting activity as a traditional measure of their civic participation. If there are indeed illegal aliens, this question may have dissuaded some people from responding.

In addition to the surveys, Residents A and B participated in a two and a half-hour interview regarding their concerns with the redevelopment project. Their insights provide an in-depth case study of the dynamics between the city of Perth Amboy and its residents. Their particular experiences are not necessarily representative of all the residents affected by the construction of the vocational-technical high school. If time had permitted, additional interviews would have been conducted to provide further insight. To maintain consistency, A and B's comments have been correlated according to the survey statements. Although at times they were prompted, for the most part A and B spoke freely regarding their feelings about the redevelopment. The interview yielded "responses" to 30 out of 32 of survey statements (only questions 27 and 31 were not accounted for). Their comments will be incorporated into the Data Analysis, Results, and Discussion and Conclusion and Policy Recommendations sections of the thesis.

CHAPTER 6

DATA ANALYSIS, RESULTS, AND DISCUSSION

6.1 Data Analysis

Although the survey response rate (32 out of 231 returned surveys) is low, inferences can still be made about public participation in Perth Amboy using both the surveys and the case study. Survey responses were divided into three categories: those with yes/no answers; those with Likert scale responses (strongly disagree, disagree, neutral, agree, and strongly agree); those for questions 10 (the form of participation) and 32 (their choice for redevelopment); and the “general information” section. The responses were numerically coded to enable data analysis, while the questions were coded to represent variables of public participation (see Appendix D for the coding scheme). With the exception of the action-oriented questions, questions 10, question 32, and the general information, all other statements produced ordered data where it is possible “to rank all observations in the data set but not know the exact values of the measurements. The location of the response on a scale of measurement is arbitrary” (Mendenall and Beaver, 1994, p. 592). For example, “strongly disagree,” “disagree,” and “neutral” were coded as 1, 2, and 3 respectively. However, there is no definitive way of knowing whether the difference between “strongly disagree” and “disagree” is the same as between “disagree” and “neutral.”

Ranked data such as this can be analyzed using nonparametric statistical methods. In this case, the Spearman rho rank correlation coefficient (r_s) was used to test for a relation between two ranked variables—or more specifically to determine a correlation between the survey questions. The Spearman rho test statistic assumes that there is no

association between ranked pairs. A correlation thus illustrates either a positive or negative relationship between the two variables. The numerical value of the correlation ranges from 0-1 (or -1 to 0), where 0 - .3 signifies a weak relationship, .4 - .6 a moderate relationship, and .7-1 a strong relation. Negative values indicate an inverse relationship. The p-value, shown in parentheses after the correlation value, indicates the significance level.

Because data from questions 10 and 32, the action-oriented questions with an “yes/no” response, and the “general information” section could not be ranked, they were analyzed using frequency tables. A frequency table denotes how many respondents indicated a specific choice for each variable. In some cases, frequencies were used to supplement correlation data. Variables for which a majority of the respondents have chosen “strongly disagree” or “strongly agree” are especially important.

Furthermore, the in-depth interview also provided “data” that illustrated the public participation process in this redevelopment project. As mentioned before, Residents A and B own a home bordering the Cable Works Corporation property, one of properties designated to house the future vocational-technical high school. Even before the redevelopment of the site, Residents A and B had noticed groundwater seeping to the surface of their property. Worried by the potential contamination, they made numerous attempts to contact city administration.

“We were just concerned. This is my property. We have groundwater seeping up to the surface, and we were told there was none. We then find out that they [Perth Amboy] knew about this since 1991. We found documents at DEP

that prove studies were being done regarding chemical levels in the groundwater. All this time we were inquiring about it and everyone we spoke to would deny it” (personal communication, March 17, 2001).

In 1998, Perth Amboy informed the residents of its intention to build the vocational-technical high school. During demolition, Residents A and B suffered property damage from debris falling into their pool and backyard. No form of barricade was put up to protect their property. Their pool is no longer usable. In addition, says Resident B “we lived with a pile of debris next to our house for almost a whole year” (personal communication, March 17, 2001). It was not until Resident B threatened to call television stations and reporters that the debris was removed.

Residents A and B are in a unique position because MCVTSS has made an offer to purchase their property, as well as their neighbor’s property and the home at the end of the block. Residents A and B have been offered market value but believe the acquisition price is actually below the market value. Residents A and B, along with their family, have lived in the house since 1982. However, both A and B are nearly life-long residents of Perth Amboy; A has lived in the city for forty-seven years, while B has lived there for forty years. Resident A believes that MCVTSS wants to acquire the entire block of homes bordering the site to create a buffer zone. It is because of MCVTSS’ offer that A and B wish to remain anonymous.

Both A and B have made numerous attempts to contact and/or obtain information about the groundwater and the debris from the city administration and its agencies. In addition, they have contacted the United States Geological Survey and visited the New

Jersey Department of Environmental Protection in Trenton. They have taken pictures of their property and the Cable Works Corporation property before and after the start of demolition. They also have video footage of the Cable Works property during demolition and remediation. According to Resident A, “I think every time they saw me doing something, it just distanced us more and more” (personal communication, March 17, 2001). Their frustration is apparent throughout the interview. In fact, they have likened their experiences to fighting a war. “We are trying to get out. We’ll move because we can’t fight city hall. That’s an old cliché but how true it really is” (personal communication, March 17, 2001).

6.2 Results and Discussion

The organization of the results will follow the organization of the survey, where variables are grouped into the awareness, public participation, city responsibility, and trust/satisfaction categories, as closely as possible. When applicable, observations from the case study have been interspersed into the discussion of the results. This study hypothesized that the residents would not be satisfied with the public participation process in Perth Amboy because they were not included from the start. While it may seem that some questions/sections (such as questions 20-22 and 25-32) are more relevant to the hypothesis, it is valuable to consider all the statements because of the emphasis on a process-oriented participatory approach.

Before analyzing the specific variables, it is important to see *who* responded to the survey. Tables 6.1, 6.2, and 6.3 denote the frequencies for respondent’s gender, ethnicity, and property type. The percentage values in the frequency tables do not take into account

unanswered responses. For this study, no assumptions were made to correlate one's gender with their likelihood of participation (whether in this survey or in Perth Amboy). The results show there is almost an even split between male and females. Further analysis indicated that gender was not correlated with the likelihood of participation.

Table 6.1: Gender of the Respondents

Gender	Frequency	Percentage
Male	16	51.6
Female	15	48.4
Did not respond	1	
Total	32	100

As expected, a majority of the residents, 78.1 percent, were Spanish-speaking (being either Hispanic/Latino or Spanish).

Table 6.2: Distribution of ethnicity

Ethnicity	Frequency	Percentage
Caucasian	4	12.5
Hispanic/Latino	23	71.9
African-American	1	3.1
Native American	1	3.1
Other (Portuguese, Spanish, and Caucasian/Hispanic)	3	9.4
Did not respond	0	
Total	32	100

It is interesting to note that 10 out of 25 Spanish-speaking respondents opted to fill out the English survey. Although this may indicate that the residents are comfortable with English, it should not prevent those involved in future public participation efforts from disseminating information in both English and Spanish. Bilingual literature may result in greater project support if residents believe that Perth Amboy has made this extra effort to foster inclusion of their opinions. Further research in this area is recommended.

No assumptions regarding property type were made at the onset of this study. The list from the tax assessor's office did include a 4A classification (mixed-use—residential/commercial) for the properties, but it was only after consulting the reverse phone book that businesses were differentiated from residential properties. As Table 6.3 depicts, it is difficult to make statistical claims regarding public participation and property type because not everyone indicated property type, thereby further reducing the response rate for this item. Comparisons between residential and business owners is difficult to make because two responses are not a representative sample of the business owner population in the area.

Table 6.3: Distribution of Property Type

Property Type	Frequency	Percentage
Business	2	8.7
Residential	23	91.3
Missing Statement	9	
Total	32	100

Despite this lack of data, some generalizations regarding property type can be made for brownfields redevelopment. In this case, a vocational-technical high school offers benefits to the entire community—residents can utilize learned skills in the commercial and/or industrial facilities in Perth Amboy. Other types of redevelopment, such as a park, may not be as *economically* beneficial for all property types—especially industrial facilities. Toward that end, it may be interesting to study whether the type of brownfields redevelopment generates a higher level of public participation depending on one's property type.

In addition to his/her gender, ethnicity, and property type, *how long* a respondent has lived in Perth Amboy may provide an indication of his/her willingness to participate—irrespective of when in the decision-making process their input was sought. Table 6.4 shows the number of years the respondents have been Perth Amboy residents.

Table 6.4: Years as Perth Amboy Resident

Years as Resident	Frequency	Percentage
1	1	3.2
1.5	1	3.2
3	3	9.7
5	2	6.5
8	1	3.2
9	2	6.5
10	2	6.5
11	2	6.5
15	2	6.5
17	1	3.2
18	1	3.2
20	1	3.2
27	1	3.2
28	1	3.2
29	1	3.2
33	1	3.2
34	2	6.5
40	3	9.7
50	1	3.2
55	1	3.2
60	1	3.2
Did not respond	1	
Total	32	100

Twenty-one respondents have lived in Perth Amboy for ten or more years. Residents A and B have lived in the city for nearly their whole lives. It is hypothesized that the longer a respondent has been a resident of Perth Amboy, the less likely he/she is to be satisfied with the public participation process in the redevelopment of the vocational-technical high

school. In fact, the Spearman rho correlation (henceforth referred to only as “correlation”) of $-.399 (.029)$ shows this to be true. This correlation indicates a moderate inverse relationship where as the years of residency increases support for the project decreases.

Although 55 percent of this subset of the respondents do support the construction of the vocational-technical high school (see Table 6.5), 30 percent remain neutral. It is difficult to assume whether a respondent chose neutrality because he/she viewed it as a “don’t care” response or because they may agree with having a vocational-technical high school but not the means by which it has been chosen as the type of redevelopment. Residents A and B, who have lived in Perth Amboy nearly their entire lives, also fall in the “neutral” category. On one hand, Resident A states, “Positive things are happening for the most part—in the big picture” (personal communication, March 17, 2001). They do not dispute that a vocational-technical high school is a bad thing, but it is hard for them to support the demolition, remediation, and construction of the brownfields site because they have incurred property damage along the way.

Table 6.5: Support for the construction of the high school among residents living in the city 10 or more years.

SUPPORT (Answer Choices)	Frequency	Percentage
Strongly disagree (1)	2	10
Disagree (2)	1	5
Neutral (3)	6	30
Agree (4)	5	25
Strongly Agree (5)	6	30
Missing Statement	1	
Total	21	100

6.2.1 Awareness Category

Table 6.8 displays the significant correlations for the variables (questions 1-6) falling within the awareness section of the survey. As stated earlier, the p-values are in the parentheses following the correlation value. Blank cells indicate that no significant correlation was found between the variables. For simplicity's sake, this and subsequent tables will use the variable code name as defined in Appendix D.

Awareness of the plan to build the high school is moderately correlated with an awareness of public ceremonies either related to brownfields redevelopment as whole or those specific to the construction of the vocational-technical high school. Awareness of the two types of public ceremonies (AWPUBPA and AWPUBVT) is highly correlated, with a Spearman rho value of .900 at a .0001 significance level. This indicates that residents perceive that Perth Amboy did promote brownfields redevelopment. The correlation between AWPUBPA and AWPUBVT is important because the construction of the high school is not the only type of redevelopment being conducted in the city. Thus, Perth Amboy did make an effort to inform residents of the redevelopment nearest to their property. In fact, there is a high correlation between awareness of the types of public ceremonies and the belief that Perth Amboy provided adequate information (PAINFVT).

However, there is a relatively low correlation between PAINFVT and attendance at the various public ceremonies (ATTPCPA and ATTPCVT). As Tables 6.6 and 6.7 indicate, most of those who responded did not attend either type of public ceremony. There is no significant correlation between ATTPCPA/ATTPCVT and a full understanding of the redevelopment effort (FULLUND), though there is a moderate

relationship between AWPUVPA and FULLUND and between FULLUND and AWPUBVT. This may suggest that residents may have obtained information from other sources—such as their neighbors—instead of the city itself.

Table 6.6: Number who attended public ceremonies relating to the brownfields redevelopment in Perth Amboy

ATTPCPA	Frequency	Percentage
Yes	7	23.3
No	23	76.7
Did not respond	2	
Total	32	100

Table 6.7: Number who attended ceremonies relating to the vocational-technical high school

ATTPCVT	Frequency	Percentage
Yes	7	22.6
No	24	77.4
Did not respond	1	
Total	32	100

Table 6.8: Correlations associated with the “Awareness”

	AWAREPLN	AWPUBPA	AWPUBVT	FULLUND	PAINFVT	CONTPROP
AWAREPLN	1	.691 (0.0001)	.634 (.0001)	.464 (.008)	.542 (.002)	
AWPUBPA	.691 (.0001)	1	.909 (.001)	.563 (.001)	.768 (.0001)	.573 (.001)
AWPUBVT	.634 (.0001)	.909 (.0001)	1	.427 (.015)	.668 (.0001)	.528 (.002)
FULLUND	.464 (.008)	.563 (.001)	.427 (.015)	1	.681 (.0001)	.404 (.022)
PAINFVT	.542 (.002)	.768 (.001)	.668 (.0001)	.681 (.00010)	1	.505 (.004)
CONTPROP		.573 (.001)	.528 (.002)	.404 (.022)	.505 (.004)	1
NEARNESS	.652 (.0001)	.559 (.001)	.582 (.001)	.357 (.049)	.519 (.003)	
ATIMEET		.411 (.024)	.389 (.031)			
OVERINV		.474 (.013)	.418 (.027)	.479 (.01)	.394 (.042)	.502 (.006)
ATIPCPA					.390 (.037)	
ATIPCVT					.374 (.042)	
TIME	.545 (.006)	.466 (.025)			.629 (.001)	
PLACE	.477 (.016)	.577 (.003)	.402 (.046)	.451 (.024)	.536 (.007)	
RESINPUT		.368 (.045)	.356 (.049)	.369 (.041)		
MYRESP	.419 (.019)			.417 (.02)		
VOICEVT	.504 (.005)	.419 (.024)	.443 (.014)		.681 (.0001)	.423 (.02)
FAIREQ	.532 (.002)	.527 (.003)	.533 (.002)		.721 (.0001)	.531 (.003)
CITYDUTY	.381 (.035)	.471 (.009)	.372 (.039)	.634 (.0001)	.407 (.026)	
PALISTEN	.524 (.002)	.410 (.0244)	.408 (.023)		.660 (.0001)	
BODYRISK	.490 (.006)				.457 (.013)	
COMMNEED	.524 (.002)	.364 (.048)	.384 (.033)	.383 (.034)	.480 (.007)	
SUPPORT	.654 (.0001)	.441 (.015)	.446 (.012)		.463 (.01)	
HEALTHY	.403 (.025)		.406 (.023)	.480 (.007)		
SAFE	.583 (.001)	.459 (.012)	.480 (.007)		.438 (.017)	
BENEFIT	.587 (.001)	.399 (.029)	.422 (.018)			
PRPTYP			-.414 (.049)	-.432 (.045)		

The moderate correlations listed in the CONTPROP (awareness of the contamination present on the brownfields sites) are interesting because they do not correspond with Resident A and B’s experiences. They conducted their own research at the New Jersey Department of Environmental Protection, finding documentation of groundwater contamination on the Cable Works Corporation property (see Chapter Four—Public Participation). The frequency distribution listed in Table 6.9 shows that not everyone was aware of the property contamination. However, because there are moderate

correlations between CONTPROP and FULLUND and CONTPROP and PAINFVT and there are no significant relationships between CONTPROP and ATTPCPA as well as between CONTPROP and ATTPCVT, this suggests that Perth Amboy may not have been completely up-front regarding the specifics of the contamination.

Table 6.9: Awareness of contamination (Question 6)

CONTPROP	Frequency	Percentage
Strongly Disagree (1)	6	18.8
Disagree (2)	5	15.6
Neutral (3)	9	28.1
Agree (4)	6	18.8
Strongly Agree (5)	6	18.8
Did not respond	0	
Total	32	100

6.2.2 Public Participation Category

The questions within this category (numbered 7-19 on the survey) were designed to provide an understanding of the individual respondent's participation behavior, as well their perception of how well Perth Amboy allowed for participation. Although some of the correlations have already been presented and discussed in the "Awareness" section, they are presented here as well (see Tables 6.12 and 6.13). Some correlations from the four categories will be repeated within the sections because a Spearman rho test produces a matrix of correlations relating each variable to every other variable.

As shown in the preceding section, an awareness of public ceremonies did not necessarily mean that respondents actually attended the ceremonies (refer to Tables 6.6 and 6.7). Data from the OVERINV, ATTMEET, and CONTCITY variables provides some insight regarding this group of respondents' participation behavior. Of the 28 who responded to the OVERINV question (#9), only 6 claimed to be involved in their

community as a whole. In reviewing the data, it became apparent that questions 8, 10, and 19 were similar. Because those who chose “no” for question 9 were asked to skip question 10, there were only 10 total responses for question 10 (some of those who chose “yes” to question 9 chose more than one option for question 10). However, a majority of the respondents answered questions 8 (ATTMEET) and 19 (CONTCITY). Their frequencies are shown in Tables 6.10 and 6.11.

When comparing the frequencies for ATTMEET and CONTCITY with those of ATTPCPA and ATTPCVT, one is lead to believe that these residents are not very active in their community. This is supported by the correlations between the attendance at the public ceremonies in relation to time and place. There is a moderate relationship between TIME and ATTPCPA, with a correlation of .423 at a .045 significance level, as well as one between TIME and ATTPCVT where the correlation is .476 at a .019 significance level. Likewise, there is a moderate correlation between PLACE and ATTPCPA (a correlation of .438 at a .032 significance level) and between PLACE and ATTPCVT (a correlation of .587 at a .002 significance level). Although only 7 respondents attended each ceremony (refer to Tables 6.6 and 6.7 in the “Awareness” section), the time and place of the ceremonies did not inhibit their ability to attend. Therefore, it appears as though Perth Amboy did hold convenient public ceremonies. For Residents A and B, annoyance with city hall inhibited them from attending some of the public ceremonies. According to Resident A, “I didn’t go the groundbreaking ceremony [which was held *immediately* behind his property] last October because I was totally frustrated” (personal communication, March 17, 2001). Whether apathy, frustration, or other factors

contributed to the lack of attendance at these ceremonies and to the overall lack of participation in the survey respondent group deserves more attention.

The study population was chosen with the issue of location in mind. There is a moderate correlation of .357 at a .048 significance level between NEARNESS and MYRESP, indicating that proximity to a redevelopment site does influence participation behavior. Of the 31 respondents who answered the NEARNESS question (#7), 25 chose either “agree” or “strongly agree”. However, no significant correlations between NEARNES and attendance at either type of public ceremonies were yielded—although there is a moderate correlation between NEARNESS and VOICVT (.557 at a .001 significance level). This may suggest that those respondents who believed that it is their responsibility to become familiar with the construction of the high school voiced their opinions through other means (such as contacting city administration). The high correlations between VOICEVT and PALISTEN (.748 at a .0001 significance level) and between VOICEVT and FAIREQ (.701 at a .0001 significance level) support this assumption.

However, the high correlations between VOICEVT and PALISTEN/FAIREQ are not valid for the entire respondent group. In fact, 10 out of 30 respondents chose “neutral” for the VOICEVT variable. Likewise, while 15 of 30 respondents agreed that everyone was given a fair and equal chance to state his or her “side” of the issue, eight individuals remained neutral. A lack of correlation between VOICEVT/FAIREQ and attendance at the public ceremonies further supports the assumption that residents may have chosen other means to offer their views regarding the vocational-technical high school. Because of the partnership between Perth Amboy and the Middlesex County

Vocational Technical School System, the public ceremonies and press releases were handled through the city. In retrospect, it would have been interesting to determine whether residents contacted the MCVTSS directly.

Table 6.10: Number who attended community meetings in Perth Amboy

ATTMEET	Frequency	Percentage
Never	17	54.8
Once	5	16.1
2-3 Times	7	22.6
4-5 Times	1	3.2
More than 5 times	1	3.2
Missing Statement	1	
Total	32	

Table 6.11: Number who contacted city administration

CONTCITY	Frequency	Percentage
Yes	7	25
No	21	75
Missing Statement	4	
Total	32	100

Table 6.12: Correlations associated with "Public Participation"

	NEARNESS	ATTMEET	OVERINV	ATTPCPA	ATTPCVT	TIME
AWAREPLN	.652 (.0001)					.545 (.006)
AWPUPA	.559 (.001)	.411(.024)	.474 (.013)			.466 (.025)
AWPUBVT	.582 (.001)	.389 (.031)	.418 (.027)			
FULLUND	.357 (.049)		.4479 (.01)			
PAINFVT	.519 (.003)		.394 (.042)	.390 (.037)	.374 (.042)	.629 (.001)
CONTPROP			.502 (.006)			
NEARNESS	1		.391 (.04)			
ATTMEET		1	.375 (.04)	.401 (.028)	.695 (.0001)	.504 (.012)
OVERINV	.391 (.04)	.375 (.049)	1	.503 (.006)	.438 (.02)	
ATTPCPA		.401 (.028)	.503 (.006)	1	.709 (.0001)	.423 (.045)
ATTPCVT		.695 (.0001)	.438 (.02)	.709 (.0001)	1	.476 (.019)
TIME		.504 (.012)		.423 (.045)	.476 (.019)	1
PLACE		.583 (.002)	.522 (.013)	.438 (.032)	.587 (.002)	.705 (.0001)
RESINPUT			.533 (.003)			
MYRESP	.357 (.048)					
VOICEVT	.557 (.001)					
FAIREQ						.474(.022)
VISSCOMM		-.371 (.04)				
PALISTEN	.570 (.001)					.570 (.004)
BODYRISK	.410 (.024)					
COMMNEED	.389 (.031)					
SUPPORT	.599 (.0001)					.452 (.027)
SUPPTAX	.491 (.005)					.435 (.034)
HEALTHY	.501 (.004)					
SAFE	.484 (.007)					
BENEFIT	.384 (.033)					
UTILIZE		-.372 (.039)		-.463 (.01)	-.358 (.048)	
YEARRES		.451 (.012)			.397 (.03)	
PRPTYP			-.509 (.022)	-.516 (.014)		
REGVOTE		.386 (.035)				.472 (.023)
VOTENOV		.438 (.015)				.558 (.006)

Table 6.13: Correlations associated with “Public Participation”

	PLACE	RESINPUT	MYRESP	VOICEVT	FAIREQ	CONTCITY
AWAREPLN	.477 (.016)		.419 (.019)	.504 (.005)	.532 (.002)	
AWPUBPA	.577 (.003)	.368 (.045)		.419 (.024)	.527 (.003)	
AWPUBVT	.402 (.046)	.356 (.049)		.443 (.014)	.533 (.002)	
FULLUND	.451 (.024)	.369 (.041)	.417 (.02)			
PAINFVT	.536 (.007)			.681 (.0001)	.721 (.0001)	
CONTPROP				.432 (.02)	.531 (.003)	
NEARNESS			.357 (.048)	.557 (.001)		
ATTMEET	.583 (.002)					
OVERINV	.522 (.013)					
ATTPCPA	.438 (.032)					
ATTPCVT	.587 (.002)					
TIME	.705 (.0001)					
PLACE	1					
RESINPUT		1	.397 (.027)			
MYRESP		.397 (.027)	1	.428 (.018)		
VOICEVT			.428 (.018)	1	.701 (.0001)	
FAIREQ				.701 (.0001)	1	
CONTCITY						1
CITYDUTY		.602 (.0001)	.502 (.004)			
VTSSCOMM					-.365 (.047)	
PALISTEN			.368 (.042)	.748 (.0001)	.690 (.0001)	
BODYRISK		.406 (.026)	.618 (.0001)	.561 (.002)	.478 (.009)	
COMMNEED			.621 (.0001)	.401 (.028)	.363 (.048)	
SUPPORT			.453 (.011)	.461 (.01)	.393 (.032)	
HEALTHY		.433 (.015)	.594 (.0001)	.493 (.006)		
SAFE			.414 (.023)	.488 (.007)		
BENEFIT		.414 (.021)	.531 (.002)			
UTILIZE			.360 (.047)			
YEARRES	.451 (.027)					
PRPTYP	-.443 (.044)					

6.2.3 City Responsibility Category

Questions falling within the “City Responsibility” category (numbers 20-24) were designed to measure *if* and *how much* the residents hold Perth Amboy and the MCVTSS responsible for the redevelopment of the vocational-technical high school. Table 6.14, at the end of this section, displays the correlations associated for the five “city responsibility” variables. Of the 31 who responded, 28 individuals agreed that it is Perth Amboy’s duty to include residents in any decision that affects them (CITYDUTY). The moderate

correlation between CITYDUTY and MYRESP (.502 at a .004 level of significance) indicates that respondents understand that public participation is a joint effort between the city and its residents. Both parties are needed to produce a meaningful public participation effort.

In addition, 27 out of 30 respondents agreed that the MCVTSS should have asked the community about its proposal to build the vocational-technical high school (VTSSCOMM). Despite this majority, the only significant correlations for this variable occur with the FAIREQ, PACOMM, and UTILIZE variables. The negative relationship between VTSSCOMM and FAIREQ (-.365 at a .047 significance level) shows that as more residents agree that the MCVTSS should have obtained community sentiment about the high school the less they believed that everyone had a fair and equal chance to voice his/her opinion. The moderate correlation between VTSSCOMM and PACOMM (.606 at a .0001 significance level) indicates that respondents perceive both parties should have solicited resident input early in the decision-making process. According to the frequency tabulation, 23 out of 30 respondents agreed that Perth Amboy should have gathered community opinion before accepting the MCTVSS' proposal.

Gathering community opinion is useless unless Perth Amboy and/or the MCVTSS take those views into consideration. Of the 31 who answered the question, only 13 individuals agreed that Perth Amboy listened to their concerns regarding this brownfields redevelopment (PALISTEN). However, the moderate to high correlations between PALISTEN and VOICEVT and between PALISTEN and FAIREQ may suggest that these respondents have genuine faith in the city. In fact, there is a highly moderate relationship between PALISTEN and SUPPORT (.688 at a .0001 significance level).

On the other hand, Resident A and B do not feel that Perth Amboy took community opinion into consideration at all. Residents A and B have made numerous attempts to meet with Mayor Vas. According to Resident B, "I've been trying to meet with Mayor Vas since September 2000 and we are now in March 2001. I am still waiting for the secretary to call me back" (personal communication, March 17, 2001). In addition, Resident B quotes the mayor as saying "you can't be a mayor and a friend."

Table 6.14: Correlations associated with “City Responsibility”

	CITYDUTY	VTSSCOMM	PACOMM	PALISTEN	BODYRISK
AWAREPLN	.381 (.035)			.524 (.002)	.490 (.006)
AWPUBPA	.471 (.009)			.410(.024)	
AWPUBVT	.372 (.039)			.408 (.023)	
FULLUND	.634 (.0001)				
PAINFVT	.407 (.026)		.660 (.0001)	.457 (.013)	
NEARNESS				.570 (.001)	.410 (.024)
TIME				.570 (.004)	
RESINPUT	.602 (.0001)				.406 (.026)
MYRESP	.502 (.004)			.368 (.042)	.618 (.0001)
VOICEVT				.748 (.0001)	.561 (.002)
FAIREQ		-.365 (.047)		.690 (.0001)	.478 (.009)
CITYDUTY	1				
VTSSCOMM		1	.606 (.0001)		
PACOMM		.606 (.0001)	1		
PALISTEN				1	.675 (.0001)
BODYRISK				.675 (.0001)	1
COMMNEED				.550 (.001)	.748 (.0001)
SUPPORT				.688 (.0001)	.578 (.001)
SUPPTAX				.370 (.04)	.376 (.04)
HEALTHY				.584 (.001)	.736 (.0001)
SAFE				.440 (.015)	.564 (.001)
BENEFIT				.490 (.005)	.695 (.0001)
UTILIZE		.360 (.046)			.468 (.009)
YEARRES					-.370 (.048)
PRPTYP	-.446 (.033)				

6.2.4 Trust and Satisfaction Category

The final portion of the survey was geared more toward the vocational technical school itself—the outcome of this redevelopment effort. Correlations associated with the variables falling within this section are presented in Tables 6.15 and 6.16 at the end of the section. The correlations and frequencies for these variables indicate that there is an overall satisfaction with the vocational-technical high school. In fact, 19 of the 32 respondents chose “vocational-technical high school” for the MYCHOICE variable (see

Table 6.17). Respondents were asked to rank their top five choices, but not everyone followed the directions. Therefore, there is no definite way to know if the vocational-technical high school is the most preferred choice of redevelopment—but the fact that it received the most number of “hits” does say something in and of itself. On the other hand, Resident B believes the community would have been better served with a recreational facility, such as a roller skating rink, for teenagers.

There is a moderate correlation between COMMNEED (the redevelopment reflected community needs) and MYRESP (.621 at a .0001 significance level) and between COMMNEED and UTILIZE (.614 at a .0001 significance level). These correlations suggest that respondents who believe it is their responsibility to become active in the redevelopment effort also believe that the redevelopment reflects community needs. They are also more likely to utilize the facilities. Twenty-four individuals agreed that the redevelopment reflects community needs. COMMNEED is highly correlated with SUPPORT, HEALTHY, and BENEFIT (see Tables 6.15 and 6.16). Although respondents may not believe that adequate public participation was sought for this redevelopment project, they seem to be satisfied with the outcome. SUPPORT is moderately correlated with PALISTEN (.688 at a .0001 significance level) suggesting that for some respondents, Perth Amboy satisfied its duty to the residents.

Although 26 out of 31 respondents believed the vocational-technical high school will benefit Perth Amboy, only 14 out of 31 agreed that they would have supported this redevelopment project if their tax dollars had been applied (SUPPTAX). In fact, the correlations between SUPPTAX and COMMNEED and SUPPTAX and BENEFIT—although moderate—are lower than the correlations between SUPPORT and

COMMNEED and SUPPORT and BENEFIT. This may suggest that respondents display an overall satisfaction with this redevelopment effort because they do not have to incur *monetary* costs. If local taxes were being applied to this project, it would have been interesting to observe whether “vocational-technical high school” would have received the highest number of “hits” under the MYCHOICE variable.

Satisfaction with the outcome of any redevelopment project is partly influenced by the cleanup of contamination. Because it is a high school, with constant human activity, residents must have faith that health risks have been properly addressed for them to utilize the school and its facilities. The HEALTHY and SAFE variables (questions 28 and 29) measured the respondents trust in both Perth Amboy and MCVTSS. HEALTHY is highly correlated with BODYRISK (.736 at a .0001 significance level), showing that respondents trust that cleanup will be adequate. A correlation of .699 at a .0001 significance level between HEALTHY and UTILIZE illustrates that the respondents are more likely to use the high school and its facilities if there are less health risks.

Use is also dependent on one’s level of safety. A high correlation between SAFE and UTILIZE (.733 at a .0001 significance level) suggests that respondents who believe they will be safe living near the high school will utilize. It is interesting to note that only 19 out of 30 respondents believed they would be safe, while 6 remained neutral. However, those who believed they would be healthy also believed they would be safe living near the vocational-technical high school. This is supported by a high correlation of .741 at a .0001 significance level between HEALTHY and SAFE. For Residents A and B, safety is not an issue. Instead, “the only concern we have is the increase of traffic and the overflow of parking” (personal communication, March 17, 2001). The correlation

between UTILIZE and BENEFIT indicates that who believe the high school is beneficial are more likely to utilize it. There is a .736 correlation at a .0001 significance level between these two variables.

Table 6.15: Correlations associated with “Trust and Satisfaction”

	COMMNEED	SUPPORT	SUPPTAX	HEALTHY
AWAREPLN	.524 (.002)	.654 (.0001)	.435 (.025)	.403 (.025)
AWPUBPA	.364 (.048)	.441 (.015)		
AWPUBVT	.384 (.033)	.446 (.012)	.357 (.049)	
FULLUND	.383 (.034)			.406 (.023)
PAINFVT	.480 (.007)	.463 (.01)		.480 (.007)
NEARNESS	.389 (.031)	.599 (.0001)	.491 (.005)	.501 (.004)
TIME		.452 (.027)	.435 (.034)	
RESINPUT				.433 (.015)
MYRESP	.621 (.0001)	.453 (.011)		.594 (.0001)
VOICEVT	.401 (.028)	.461 (.01)		.493 (.006)
FAIREQ	.363 (.048)	.393 (.032)		
PALISTEN	.550 (.001)	.688 (.0001)	.370 (.04)	.584 (.001)
BODYRISK	.748 (.0001)	.578 (.0001)	.376 (.04)	.736 (.0001)
COMMNEED		.745 (.0001)	.430 (.016)	.768 (.0001)
SUPPORT	.745 (.0001)		.613 (.0001)	.647 (.0001)
SUPPTAX	.430 (.016)	.613 (.0001)		.391 (.029)
HEALTHY	.768 (.0001)	.647 (.0001)	.391 (.029)	
SAFE	.527 (.003)	.610 (.0001)	.383 (.037)	.741 (.0001)
BENEFIT	.851 (.0001)	.781 (.0001)	.486 (.006)	.692 (.0001)
UTILIZE	.614 (.0001)	.527 (.002)		.699 (.0001)
YEARRES	.362 (.05)	-.399 (.029)		-.452 (.012)
REGVOTE				-.374 (.042)
VOTENOV				-.370 (.044)

Table 6.16: Correlations associated with “Trust and Satisfaction”

	SAFE	BENEFIT	UTILIZE
AWAREPLN	.583 (.001)	.587 (.001)	
AWPUBPA	.459 (.012)	.399 (.029)	
AWPUBVT	.480 (.007)	.422 (.018)	
PAINFVT	.438 (.0017)		
NEARNESS	.484 (.007)	.384 (.033)	
ATTMEET			-.372 (.039)
RESINPUT		.414 (.021)	
MYRESP	.414 (.023)	.531 (.002)	.360 (.047)
VOICEVT	.488 (.007)		
VTSSCOMM			.360 (.046)
PALISTEN	.440 (.015)	.490(.005)	
BODYRISK	.564 (.001)	.695 (.0001)	.468 (.009)
COMMNEED	.527 (.003)	.851 (.0001)	.614 (.0001)
SUPPORT	.610 (.0001)	.781 (.0001)	.527 (.002)
SUPPTAX	.383 (.037)	.486 (.006)	
HEALTHY	.741 (.0001)	.692 (.0001)	.699 (.0001)
SAFE	1	.603 (.0001)	.733 (.0001)
BENEFIT	.603 (.0001)	1	.736 (.0001)
UTILIZE	.733 (.0001)	.736 (.0001)	1
YEARRES	-.529 (.003)		
VOTENOV	-.371 (.047)		

Table 6.17: Frequencies for MYCHOICE

MY CHOICE	Frequency
Vocational-technical high school	19
Housing units	18
Playground	15
Child-care service	11
Park	11
Elementary school	10
Gym	9
Religious facility	9
Restaurant	9
Grocery store	8
Middle school	8
High school	7
Office space	7
Additional parking space	5
Warehouse/storage facility	3
Laundry mat	2

CHAPTER 7

CONCLUSIONS AND POLICY RECOMMENDATIONS

Based on the analysis of the data, conclusions and policy recommendations have been developed. These recommendations are applicable to brownfields redevelopment as a whole, but are especially important for Perth Amboy because it is still in the process of redevelopment. Municipalities dealing with brownfields have an obligation to their constituents to consider the social and economic costs of revitalization. Because there is not a single or easy solution for facilitating public participation, further research toward this end is encouraged. Suggestions for future research, as well suggestions regarding the conduct of the survey, are provided.

7.1 Conclusions from the Data Analysis

Although the respondents have an overall satisfaction with the vocational-technical high school, Perth Amboy and Middlesex County Vocational Technical School System should have gathered community opinion early in the redevelopment process. Analysis within the “Public Participation” category indicates that these respondents are not that active in the community as a whole. However, they are not representative of the entire population affected by the future high school. A lack of involvement does not absolve Perth Amboy of its responsibilities.

Frustration, or apathy stemming from frustration, seems to have caused the low attendance at the public ceremonies. Public participation is a two-way venture where both the initiators of participation and the participators must make an effort. However, the burden of public participation is a little heavier on municipalities (or any similar agency)

because individual residents do not have access to all the resources required for a redevelopment project. Hence, the exchange of information between the city and its residents is important.

The process of redevelopment is as important as the final outcome. Support for the vocational-technical high school decreases if local taxes had been used to fund the project. Residents are not happy with the way redevelopment has been conducted, but have conceded their support because there is no other alternative. The city and the Middlesex County Vocational Technical School System have not satisfied their duty to the residents of Perth Amboy, resulting in resigned satisfaction with this redevelopment effort.

7.2 Policy Recommendations

As emphasized by Residents A and B, one's perspective on a redevelopment project greatly affects one's acceptance and support of it—namely the difference between the big picture and the small picture. There is no argument that Perth Amboy's intentions to conduct brownfields redevelopment are anything but positive. Economic revitalization, especially for a city that must deal with the negative effects of heavy industrialization, is important. However, realization of the main goal cannot override the small steps needed to achieve that goal.

Again, the overarching recommendation is for “outside” agencies to elicit participation from the onset of the decision-making process. In this case, Perth Amboy and the MCVTSS are viewed as the outside agencies. This is especially unfortunate because Mayor Vas is a long-time resident of Perth Amboy (who attended high school with Residents A and B). The mechanisms for participation must be continuous

throughout the process. No matter how beneficial the redevelopment, there is a difference between *telling* someone what will be developed as opposed to *asking* him/her what he/she would like. Of course, it is understood that not everyone's view can be accommodated, but there should be a democratic way of coming to a decision. It would have been interesting to know whether residents would have chosen a vocational-technical high school if their views been solicited earlier.

The following recommendations are means by which participation can be both early and continuous. Bilingual literature, especially in this case, is very important. Many members of the city administration are Spanish-speaking themselves. Perhaps, as part of the city's responsibility, separate meetings conducted in Spanish can be offered. If that is too much trouble, a Hispanic/Latino organization (or any such organization that represents the dominant minority) may be able to provide assistance with the translation of the materials. Bilingual translators can be present at meetings or an organization can give residents the opportunity to call and discuss their concerns. If meetings are held in rooms equipped with audio/visual facilities, perhaps they can be taped and broadcasting on a Spanish channel.

Notices of the public ceremonies or meetings should be given to residents in advance. If meeting attendance is low, follow-up letters that summarize the meeting and encourage future participation should be sent. In addition, handouts at the meetings that simplify technical jargon can also help generate participation. Some individuals may actually want to participate but may be turned off by the technical aspect of brownfields redevelopment. Again, a Hispanic/Latino organization (or a similar entity) can help translate this material.

To foster continuous communication, city administration must make an honest effort to meet with its constituents. Frustration with the city, as exhibited by Residents A and B, adds to a lack of participation. Public participation is a two-way street. Encouraging it is not good enough if the city (or any such agency) is unwilling to provide an open forum of information exchange. Likewise, any partnering agencies must also extend this courtesy. Information should not be hidden from the residents, especially with sensitive issues such as soil and groundwater contamination.

7.3 Future Research

The following are recommendations for future research in brownfields redevelopment (not necessarily restricted to Perth Amboy). Some have already been mentioned in the Results and Discussion section in Chapter 6.

Does bilingual literature generate more public involvement? Cities with a diverse population like Perth Amboy need to understand the effects of language barriers on public participation. A city that caters to the needs of its residents will be more successful in eliciting participation. Bilingual literature (or the presence of translators) sends a comforting message to the community. Each person's view is important and a language barrier should not prevent one from participating.

Does property type influence who participates in brownfields redevelopment? Are residents/owners of certain property types more apt to participate in certain types of redevelopment? If, for example, industrial properties are active only when their operations are threatened, then it is important to understand why they do not lend their support for

every redevelopment effort. Each property is part of the community as a whole, and is thus affected by brownfields redevelopment—either positively or negatively.

Does proximity to a site influence public participation? Although the study population was determined with location in mind, a true understanding of the affects of proximity can be made only with two study populations—one near the site and the other farther away but in the same city. Because Perth Amboy has multiple brownfields projects, location may be the deciding factor as to which project residents take part in.

Can public participation be increased if partnering agencies are easily accessible to the community? Would more people have participated if the Middlesex County Vocational Technical School System took a more active role in consulting community opinion? Partnerships such as the one in Perth Amboy involve additional stakeholders into the project. Too much “outside” involvement and not enough “inside” involvement can discourage participation and may even inhibit the project if residents are not satisfied.

Over time, how has brownfields redevelopment contributed to the community? Have the redevelopment benefited the community? Are residents/consumers utilizing the product? In the case of the vocational-technical high school, are Perth Amboy residents attended the school? Are graduates returning to work in the city with their acquired skills? Are residents making use of the athletic facilities?

Does the process of one redevelopment effort affect another effort in the same city? Are residents more likely to participate in future brownfields projects in Perth Amboy because they were not given a full opportunity to do so with the high school? Or will they continue to be acquiescent toward the city administration? Brownfields redevelopment can help create unity and communication between a city and its residents.

The first effort can set the stage for future efforts. It is valuable in knowing whether the sentiments and feelings regarding one project affect participation in future brownfields in the same city.

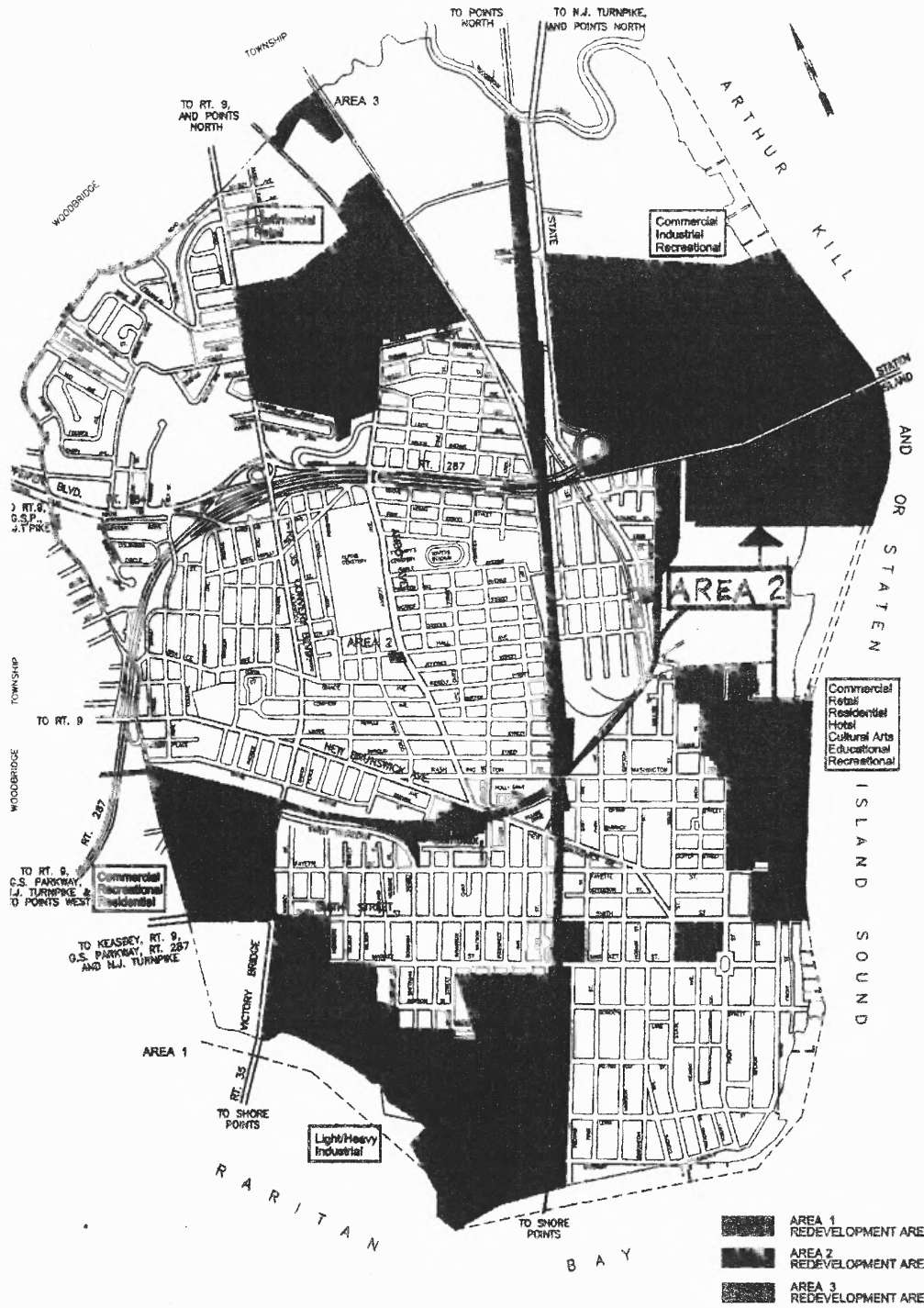
7.4 Research Recommendations from the Administration of the Study

Because of the low response rate, statistical claims could not be made for the variables. To get a better understanding of the public participation dynamics, a higher response rate is recommended. Perhaps a shorter and more focused survey can be developed. In addition, follow-up contact should be soon after the initial survey administration.

APPENDIX A

REDEVELOPMENT MAP OF PERTH AMBOY

This redevelopment map, made by Jacobs Environmental, Inc., shows Area 2—where the vocational-technical high school will be located.



REDEVELOPMENT AREAS

DECEMBER 2000



CITY OF PERTH AMBOY
MIDDLESEX COUNTY, NEW JERSEY



Prepared By:
Jacobs Environmental, Inc.
A BBL Company
Engineers, Scientists, Planners
128 Carlstadt Avenue, Carlstadt, New Jersey 08881
(762) 497-0700

Perth Amboy, NJ - 08861

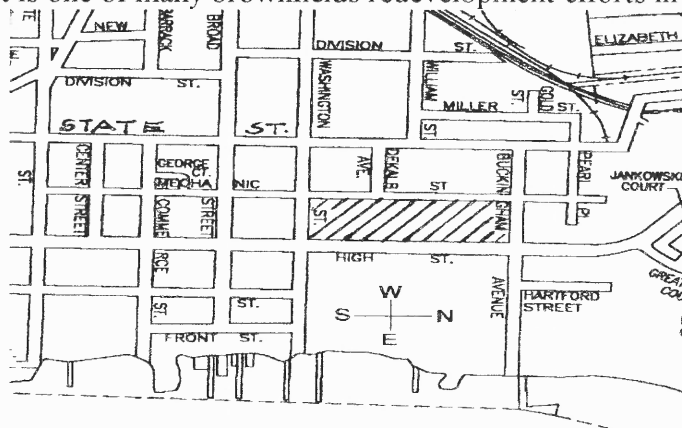
APPENDIX B

SURVEY SENT TO RESIDENTS/BUSINESSES WITHIN A 500-FOOT RADIUS OF THE VOCATIONAL –TECHNICAL HIGH SCHOOL

Appendix B displays the English and Spanish versions of the survey.

Satisfaction with Brownfields Redevelopment Survey

I am conducting a survey of your satisfaction with public participation in brownfields redevelopment. Brownfields are abandoned, idled, or underutilized properties that may be contaminated. These factors can prevent the redevelopment of brownfields. Mayor Vas has initiated the "Focus 2000" Redevelopment Plan to put brownfields in Perth Amboy back into productive use. The new vocational-technical high school and satellite campus of Middlesex County College to be built on High Street between Buckingham Avenue and Washington Street is one of many brownfields redevelopment efforts in Perth Amboy.



This is where the Cable Works Corporation property and part of the old DuPont factory used to be, along with the Ploitnick and Velasco Building. The construction of the high school is a joint venture between Perth Amboy and the Middlesex County Vocational and Technical School System (MCVTSS) that includes athletic and parking facilities and a satellite campus for Middlesex County College. The MCVTSS came to Mayor Vas with its proposal to build a new high school. Perth Amboy began the process of remediation (removal of debris, clean up of the soil/water, reduction and/or elimination of any contamination). Now the MCVTSS continues remediation and will build the high school. The school is scheduled to open January 2003. The entire project is funded by federal, state, and county money, and thus is at no cost to the residents of Perth Amboy.

This survey is designed to gather your satisfaction in being able to participate in the redevelopment effort of the vocational-technical high school. The survey is a part of my graduate thesis in Environmental Policy Studies at the New Jersey Institute of Technology. I have only chosen residences and businesses within a 500-foot radius of the properties that are being redeveloped as part of my research. Therefore, your response is important and greatly appreciated. If you have any questions about the survey, please contact me at 732-727-6492

Sincerely,

Leena Raut

Please circle the appropriate answer.

1. I am aware of the plans to build a vocational-technical high school in Perth Amboy.
 - a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

2. I was aware of either the public ceremonies or press conferences related to brownfields redevelopment in Perth Amboy.
 - a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

3. I was aware of either the public ceremonies or press conferences related to the construction of the vocational-technical high school.
 - a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

4. I fully understand the redevelopment effort to turn the properties mentioned in the introduction of this survey into the new vocational-technical high school, satellite campus for Middlesex County College, and athletic and parking facilities.
 - a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

5. Perth Amboy provided me with adequate information concerning this project.
 - a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

6. I was aware that the properties being developed into the vocational- technical high school were contaminated.
- strongly disagree
 - disagree
 - neutral
 - agree
 - strongly agree
7. Because I am near the properties being turned into the high school, I am interested in their redevelopment.
- strongly disagree
 - disagree
 - neutral
 - agree
 - strongly agree
8. I have attended community meetings in Perth Amboy.
- never
 - once
 - 2-3 times
 - 4-5 times
 - more than 5 times
9. Overall are you involved in your community, either in the neighborhood you live in or in Perth Amboy as a whole? (If YES, please go to the next question-if NO, please skip question 10)

YES

NO

10. How do you participate in the community?
- attend meetings
 - volunteer
 - contact city administration
 - donate money
 - other (please specify) _____
11. I attended either the public ceremonies or press conferences regarding Brownfields redevelopment in Perth Amboy.

YES

NO

12. I attended either the public ceremonies or press conferences specific to the vocational-technical high school.

YES

NO

13. The public ceremonies or press conferences were at a convenient time for me to attend.
- a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree
14. The public ceremonies or press conferences were at a convenient location for me to attend.
- a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree
15. Input from the residents is necessary for a successful brownfields redevelopment.
- a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree
16. It is my responsibility to become familiar with the redevelopment of the sites being turned into the vocational-technical high school.
- a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree
17. I was able to voice my opinions regarding the construction of the vocational-technical high school.
- a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

18. Everyone had a fair and equal chance to state his or her “side” of the issue.
- a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

19. I contacted the city administration with questions and concerns.

YES

NO

20. It is the duty of the city to include residents in any decision that affects us.
- a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

21. The Middlesex County Vocational and Technical School System should have asked the community about its proposal to build the vocational-technical high school.
- a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

22. The city of Perth Amboy should have gathered community opinion before accepting the proposal from the Middlesex County Vocational and Technical School System.
- a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

23. I feel the city administration listened to my concerns about the redevelopment effort.
- a. strongly disagree
 - b. disagree
 - c. neutral
 - d. agree
 - e. strongly agree

24. I believe the city and the Middlesex County Vocational and Technical School System will do their best to eliminate health risks on the land being redeveloped.
- strongly disagree
 - disagree
 - neutral
 - agree
 - strongly agree
25. I feel the redevelopment of the vocational-technical high school reflected community needs.
- strongly disagree
 - disagree
 - neutral
 - agree
 - strongly agree
26. I support the redevelopment of the vocational-technical high school.
- strongly disagree
 - disagree
 - neutral
 - agree
 - strongly agree
27. I would support the redevelopment of the vocational-technical high school even if my tax dollars had been used.
- strongly disagree
 - disagree
 - neutral
 - agree
 - strongly agree
28. I believe I will be healthy living near the vocational-technical high school.
- strongly disagree
 - disagree
 - neutral
 - agree
 - strongly agree

29. I will be safe living near the vocational-technical high school.
- strongly disagree
 - disagree
 - neutral
 - agree
 - strongly agree
30. I believe the redevelopment will benefit the residents of Perth Amboy.
- strongly disagree
 - disagree
 - neutral
 - agree
 - strongly agree
31. I hope to utilize the high school and/or its facilities.
- strongly disagree
 - disagree
 - neutral
 - agree
 - strongly agree
32. If you were able to decide what type of redevelopment would occur on the properties being turned into the vocational-technical high school, what would you choose from the list below?
(Please rank your top five choices, 1-5, with five being the most desirable).
- _____ a. housing units
 - _____ b. park/open space
 - _____ c. grocery store
 - _____ d. elementary school
 - _____ e. middle school
 - _____ f. high school
 - _____ g. vocational-technical school
 - _____ h. gym
 - _____ i. office space
 - _____ j. playground
 - _____ k. child care service
 - _____ l. warehouse/storage facility
 - _____ m. religious facility
 - _____ n. additional parking area
 - _____ o. laundry mat
 - _____ p. restaurant

General Information: Please circle the appropriate answer

This information is being used to determine if the survey is representative of the population. Individual responses will not be shared with anyone.

Gender:

Male

Female

Ethnicity:

Caucasian

Hispanic/Latino

Asian

African American

Native American/American Indian

Other (please specify) _____

Number of years as a Perth Amboy resident _____

Property Address _____

Property type: Business Residential Industrial (please circle one)

Are you registered to vote? Yes No

Did you vote in past election (November 7, 2000)? Yes No

Please fold and tape the survey booklet, and return it to my address on the back page. Postage has already been provided. Your return address is not needed.

Brownfield Survey Response

Survey Program Number:

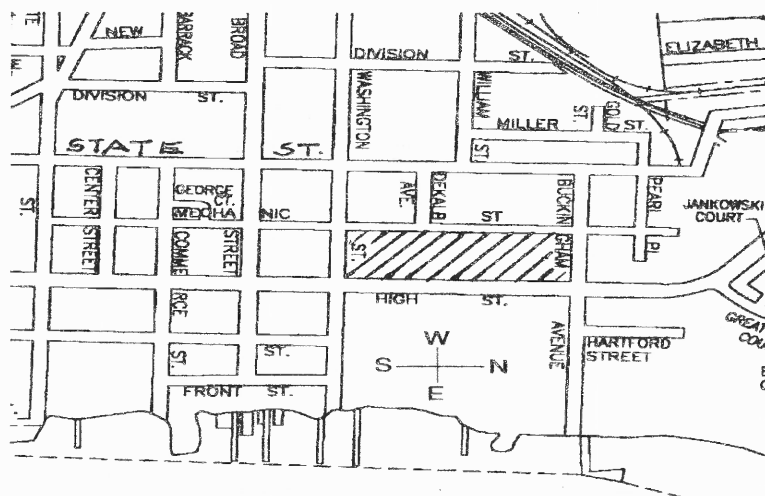
First Class

Leena Raut
26 Dartmouth Road
Parlin, NJ 08859-1233

Cuestionario sobre Redesarrollo de "Brownfields"

Como parte de mis requisitos para completar mi maestria en Política Pública Ambiental en Instituto Tecnológico de Nueva Jersey (NJIT, por sus siglas en inglés), estoy recabando de su ayuda para completar este cuestionario. El propósito de este cuestionario es levantar información sobre el nivel de conocimiento y diseminación de información sobre el Plan "Focus 2000" que el alcalde de Perth Amboy, Honorable Joseph Vas, ha propuesto.

"Brownfields," son lotes abandonados, subutilizados, contaminados o percividos contaminados. Estas características impiden que estas propiedades sean reutilizadas. La ciudad de Perth Amboy ha propuesto el redesarrollo de varias propiedades que son consideradas "brownfields." Estas cuatro son: La Corporacion de Trabajo De Cable, una parte de la fábrica DuPont, y el edificio Plotnick y Velasco. Este lote vacío será usado para construir una escuela superior con sus facilidades atléticas y de estacionamiento. La escuela técnico vocacional será construida en la Calle High entre la Avenida Buckingham y la Calle Washington.



Este proyecto de construcción es un acuerdo entre la ciudad de Perth Amboy y el Sistema Técnico Vocacional del Condado Middlesex (STVCM). La ciudad de Perth Amboy inicio el proceso de remediacion (remocion de escombros, limpieza del agua subterránea y el suelo, y la reducion y eliminacion de contaminantes. Ahora STVCM continua con el proceso de remediacion y construirá la escuela que se proyecta abrirá en enero del año 2003. Este proyecto ha sido financiado con fondos federales, estatales, y locales. Por lo tanto, los residentes de Perth Amboy no pagan por este redesarrollo. Solo se seleccionaron aquellos residentes y negocios viviendo a una distancia de 500 pies de la propiedad donde se construye la escuela. Por esta razón es de vital importancia que usted responda a este cuestionario. Su ayuda contestando este cuestionario será muy agradecida. Muchas Gracias. Por favor si tiene alguna pregunta no dude en llamarmeme al 732-727-6492.

Sinceramente,
Leena Raut

Por favor seleccione la contestación apropiada.

1. Yo tengo conocimiento sobre los planes para construir una escuela superior técnica vocacional en Perth Amboy.
 - a. Completamente en desacuerdo
 - b. Desacuerdo
 - c. Neutral
 - d. Acuerdo
 - e. Completamente en acuerdo

2. Yo he tenido conocimiento de eventos públicos (como conferencia de prensa) relacionadas con redesarrollos de "brownfields."
 - a. Completamente en desacuerdo
 - b. Desacuerdo
 - c. Neutral
 - d. Acuerdo
 - e. Completamente en acuerdo

3. Yo he tenido conocimiento de eventos públicos (como conferencia de presa) relacionadas con la contrucción de la escuela superior técnica vocacional.
 - a. Completamente en desacuerdo
 - b. Desacuerdo
 - c. Neutral
 - d. Acuerdo
 - e. Completamente en acuerdo

4. Yo entiendo completamente los esfuerzos para redesarrollar y construir la escuela superior técnica vocacional, con sus facilidades atléticas y de estacionamientos.
 - a. Completamente en desacuerdo
 - b. Desacuerdo
 - c. Neutral
 - d. Acuerdo
 - e. Completamente en acuerdo

5. La ciudad de Perth Amboy me proveyó suficiente información relacionada con este proyecto.
 - a. Completamente en desacuerdo
 - b. Desacuerdo
 - c. Neutral
 - d. Acuerdo
 - e. Completamente en acuerdo

6. Yo tenía conocimiento de que la propiedad donde se construirá la escuela superior técnica vocacional estaba contaminada.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
7. Yo tengo interés en redesarrolle la propiedad donde se construye la escuela superior técnica vocacional porque vivo cerca de ella
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
8. Yo he atendido reuniones comunales en Perth Amboy.
- Nunca
 - Una vez
 - 2 a 3 veces
 - 4 a 5 veces
 - Más de 5 veces
9. ¿En general, está usted involucrado con su comunidad, en su vecindario o en toda la ciudad de Perth Amboy? (Si contesta no, pase la próxima pregunta)

Sí

No

10. ¿De que forma usted participa en su comunidad?
- Asisto la reunions
 - Soy voluntario
 - Estoy en contacto con la administración de la ciudad
 - Dono dinero
 - Otra (por favor especifique) _____
11. Yo he asistido a ceremonias públicas (como conferencias de presa) relacionades específicamente con el redesarrollo de "brownfields" en Perth Amboy.

Sí

No

12. Yo he asistido a ceremonias públicas (como conferencias de prensa) relacionadas específicamente con la escuela superior técnica vocacional.

Sí

No

13. Estas actividades fueron en un lugar adecuado.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
14. Estas actividades fueron a una hora conveniente.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
15. La participación efectiva de los residents es necesaria para un programa exitoso de redesarrollo de "brownfields."
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
16. Es mi responsabilidad el familiarizarme con el redesarrollo de la escuela técnica vocacional.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
17. Yo tuve la oportunidad de brindar mi opinión en relación a la construcción de la escuela técnica vocacional.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo

24. El STVCM y la ciudad de Perth Amboy hará todo lo posible para eliminar los potenciales riesgos a la salud debido a los contaminantes que se encuentren en los suelos donde se desarrolla la escuela superior técnica vocacional.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
25. Yo siento que la decisión de construir la escuela superior técnica vocacional responde a las necesidades de la comunidad.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
26. Yo apoyo la construcción de la escuela superior técnica vocacional.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
26. Yo apoyaría la construcción de la escuela superior técnica vocacional aunque se usaran dineros provenientes de los fondos que generan mis impuestos.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
28. Yo creo que vivir cerca de la escuela superior técnica vocacional no representa ningún riesgo para la salud.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo

29. Yo creo que es seguro vivir cerca de la escuela superior técnica vocacional.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
30. Yo creo que el redesarrollo beneficiara a los residentes de la ciudad de Perth Amboy.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
31. Yo espero tener acceso y poder utilizar la escuela y sus facilidades.
- Completamente en desacuerdo
 - Desacuerdo
 - Neutral
 - Acuerdo
 - Completamente en acuerdo
32. Si usted pudiera decidir que tipo de redesarrollo debería ocurrir en la propiedad donde ahora se construirá la escuela superior técnica vocacional, ¿Cuáles serían sus recomendaciones? (Por favor selecciones aquellas cinco alternativas deseables donde la identificada número 5 es la que usted le gustaría más).
- Vivienda
 - Parque pasivo/ espacio abierto
 - Colmado
 - Escuela elemental
 - Escuela intermedia
 - Escuela superior
 - Escuela técnica vocacional
 - Gimnasio
 - Oficinas
 - Parque para niños
 - Facilidades de cuidados para niños
 - Almacén.
 - Facilidades religiosas
 - Facilidades de estacionamiento
 - Tintorería
 - Restaurante

Información General: Por favor haga un círculo alrededor de su respuesta.

Esta información será usada para determinar si este cuestionario es representativo de la comunidad. Su cosntestaciones serán completamente confidenciales.

Sexo:

Varón

Hembra

Etnicidad:

Caucásico

Hispano/Latino

Asiático

Afroamericano

Nativo Americano

Otro (Por favor especifique) _____

¿Cúantos años lleva residiendo en Perth Amboy? _____

Dirección _____

Tipo de propiedad: Negocio Residencia Industrial

¿Está usted inscrito para votar? Sí No

¿Votó usted en las pasadas elecciones (7 de Noviembre, 2000)? Sí No

Por favor doble y selle el cuestionario y devuélvalo a la dirección especificada en la última página del cuestionario. Usted no tiene que pagar nada ya que el costo de el envío ha sido cubierto. Recuerde que su dirección no es necesario, así que asegura que sus respuestas son confidenciales.

Brownfields Survey Response

Survey Program Number:

First Class

Leena Raut
26 Dartmouth Road
Parlin, NJ 08859-1233

APPENDIX C

THE FOLLOW-UP POSTCARD

Appendix B displays an enlargement of the follow-up postcard.

Four weeks ago I sent surveys regarding Brownfields redevelopment in Perth Amboy. The surveys were specifically about the new vocational-technical high school to be built on High Street between Buckingham Avenue and Washington Street. You were selected as a survey recipient for my graduate thesis in Environmental Policy Studies at the New Jersey Institute of Technology. I have only chosen those residences and businesses within a 500-foot radius of the properties being turned into the vocational-technical high school. Therefore, your response is important and greatly appreciated. If you need additional surveys, or have questions about completing the survey, please feel free to contact me at 732-727-6492. When you call, please make sure to have the "Survey Program Number" handy.

Hace ya cuatro semanas que yo le envié un cuestionario indagando su conocimiento de un proyecto de redesarrollo de "Brownfields" en Perth Amboy. En específico, le preguntaba que sabía usted sobre la construcción de la Escuela Superior Técnica Vocacional que se planea construir en la Calle High entre la Avenida Buckingham y la Calle Washington. Usted fue seleccionado como recipiente de este cuestionario debido a que su residencia o negocio se localiza en un radio de 500 pies de distancia del proyecto propuesto. Este cuestionario es parte de mi investigación para poder completar mi Maestría en Estudios de Política Pública Ambiental. Como ve, su pronta respuesta a este cuestionario es de suma importancia y se le será profundamente agradecida. Si usted necesita cuestionarios adicionales o tiene alguna pregunta de como completar su cuestionario, por favor llamame al 732-727-6492. Si usted decide llamarme y para mantener la más absoluta discreción, tenga a mano el número de identificación del Cuestionario. Este número está impreso en esta tarjeta de aviso que acaba de recibir.

Thank you/Muchas Gracias,
Leena Raut

Survey Program Number:

APPENDIX D

CODING SCHEME FOR VARIABLES AND RESPONSES

The main idea of each survey was coded to yield the thirty-two variables used used to measure one's satisfaction with public participation. Answer choices were also coded to enable data analysis.

Data Coding for Brownfields Survey

Question Number and Corresponding Variable Names

Question 1	AWAREPLN	
Question 2	AWPUBPA	
Question 3	AWPUBVT	
Question 4	FULLUND	
Question 5	PAINFVT	
Question 6	CONTPROP	
Question 7	NEARNESS	
Question 8	ATTMEET	
Question 9	OVERINV	
Question 10	HOWPART	
Question 11	ATTPCPA	
Question 12	ATTPCVT	
Question 13	TIME (English)	PLACE (Spanish)
Question 14	TIME (Spanish)	PLACE (English)
Question 15	RESINPUT	
Question 16	MYRESP	
Question 17	VOICEVT	
Question 18	FAIREQU	
Question 19	CONTCITY	
Question 20	CITYDUTY	
Question 21	VTSSCOMM	
Question 22	PACOMM	
Question 23	PALISTEN	
Question 24	BODYRISK	
Question 25	COMMNEED	
Question 26	SUPPORT	
Question 27	SUPPTAX	
Question 28	HEALTHY	
Question 29	SAFE	
Question 30	BENEFIT	
Question 31	UTILIZE	
Question 32	MYCHOICE	

General Information

Gender:	MALE	FEMALE			
Ethnicity:	CAUC	HISLAT	ASIAN	AFRAM	NATAMER
	OTHER				
Years as resident:	YEARES				
Property Address:	PROPADD				
Property Type:	PRPTYP				
Registered to vote:	REGVOTE				
Voted in Nov.:	VOTENOV				

Coding for Answer Choices

A	1
B	2
C	3
D	4
E	5
YES	1
NO	0

Question 10: Each of the five choices is given an equal ranking of "1." If a respondent picked a choice, a 1 is placed in the column corresponding to that answer choice. If the person did not answer the question, either because he/she was instructed not to in question 9 or he/she randomly skipped the question, no value is recorded.

Question 32:

Place number according to rank if done correctly

Place 3 for every choice if done incorrectly

Created (IN)CORRECT column; 1 if answered correctly and 0 if answered incorrectly

REFERENCES

- Back, B.J. (2000). You call this a showcase? *Business Journal of Portland, Inc.*, 17(2,) pp.31+. Retrieved March 25, 2001 from INFOTRAC database.
- Behroozi, C. (2000). Leaders learn how to bring citizens into smart growth planning process. *Nation's Cities Weekly*, 23(50), pp.10+. Retrieved March 25, 2001 from INFOTRAC database.
- Center for Public Environmental Oversight. (2001). Citizens' report on brownfields. (Volume 3, Number 1). [Brochure]. Siegel, L.: Author
- Center for Public Environmental Oversight. (n.d.). *Recommendations for responsive brownfields revitalization*. San Francisco. Retrieved March 29, 2001 from the World Wide Web: <http://www.cpeo.org/pubs/reccom.html>
- Center for Public Environmental Oversight. (n.d.). *About the center for public environmental oversight*. San Francisco. Retrieved April 4, 2001 from the World Wide Web: <http://www.cpeo.org/about.html>
- City of Perth Amboy. (1997, May 13). Mayor Vas visits White House to receive federal grant. [Brochure—press release].
- City of Perth Amboy. (1997, August 6). U.S. Senate approves \$2 million grant for city of Perth Amboy. [Brochure-press release].
- City of Perth Amboy. (1997, October 22). Hazardous discharge site remediation program benefits redevelopment efforts. [Brochure-press release].
- City of Perth Amboy. (1997, November 10). City of Perth Amboy presented with \$200,000 brownfields check. [Brochure-press release].
- City of Perth Amboy. (1998, May 5). Mayor Vas announces DuPont demolition schedule. [Brochure-press release].
- City of Perth Amboy. (1998, July 16). Freeholders to vote on new Perth Amboy vo-tech site: Focus 2000 to benefit. [Brochure-press release].
- City of Perth Amboy. (1998, August 10). City to award contracts for DuPont demolition. [Brochure-press release].
- City of Perth Amboy. (1998, October 30). Perth Amboy takes leaps and bounds as demolition begins on long standing eyesore. [Brochure-press release].

- City of Perth Amboy. (1999, January 11). Dream becomes a reality as DuPont factory demolition begins. [Brochure-press release].
- City of Perth Amboy. (2000, June 2). Perth Amboy turns property over to county vo-tech board for new school site. [Brochure-press release].
- Cunningham, J.T. (1994). This is New Jersey. New Brunswick, NJ: Rutgers University Press.
- Dennison, M.S. (1998). Brownfields redevelopment: Programs and strategies for rehabilitating contaminated real estate. Rockville, MD: Government Institutes
- DePiertropaolo, R. (1998). Greener acres: Housing development of brownfields. *Mark Builder*, 21(11), pp.154+. Retrieved March 25, 2001 from INFOTRAC database.
- Environmental Protection Agency. (1997, April). *Federal interagency working group on brownfields*. Washington D.C. Retrieved January 10, 2001 from the World Wide Web: <http://www.epa.gov/swerops/bf/html-doc/intragwg.htm>
- Environmental Protection Agency. (1997, May). *Brownfields national partnership agenda*. Washington D.C. Retrieved January 10, 2001 from the World Wide Web: http://www.epa.gov/swerops/bf/html-doc/97aa_fs.htm
- Environmental Protection Agency. (1997, September 30). *Brownfields glossary of terms* [Definition]. Washington D.C. Retrieved January 10, 2001 from the World Wide Web: <http://www.epa.gov/swerops/bf/glossary.htm>
- Environmental Protection Agency. (1998, February 10). *Public participation: EPA region 2 brownfields white paper*. Washington D.C. Retrieved April 12, 2001 from the World Wide Web: <http://www.epa.gov/region02/superfnd/brownfld/whitepap.htm>
- Environmental Protection Agency. (2000, August 21). *Brownfields workforce development*. Washington D.C. Retrieved January 30, 2001 from the World Wide Web: <http://www.epa.gov/swerops/bf/job.htm>
- Environmental Protection Agency. (2000, August 24). *Public participation: EPA's brownfields initiative works for you*. Washington D.C. Retrieved April 12, 2001 from the World Wide Web: http://www.epa.gov/epahome/public_0824.htm
- Environmental Protection Agency. (2000, October). *Brownfields economic redevelopment initiative*. Washington D.C. Retrieved January 10, 2001 from the World Wide Web: <http://www.epa.gov/swerops/bf/html-doc/econinit.htm>

- Foreman Jr., C.H. (1996). A winning hand? *Brookings Review*, 14(2), pp.22+. Retrieved October 30, 1999 from the World Wide Web: <http://www.ebsco.com>
- Glicken, J. (1999). Effective public involvement in public decisions. *Science Communication*, 20(3), pp.298+. Retrieved March 22, 2000 from the World Wide Web: <http://www.ebsco.com>
- Gopalan, P. (1997). The trust factor in participation and social education. *The Annals of the American Academy of Political & Social Science*, v554, pp.178+. Retrieved November 12, 2000 from the World Wide Web: <http://www.ebsco.com>
- Helfand, G. E., & Peyton, L.J. (1999). A conceptual model of environmental justice. *Social Science Quarterly*, 80(2), 68-83.
- Hise, R., & Nelson, A.C. (1999). Urban brownfields: Strategies for promoting urban brownfield reuse at the state and local level. *Economic Development Review*, 16(2), pp.67+. Retrieved March 16, 2001 from the World Wide Web: <http://www.ebsco.com>
- Jacobs Environmental, Inc. (1997, March). Focus 2000: The city of Perth Amboy's redevelopment plan.
- Karasik, G., & Aschkens, A.M. (1999). Middlesex county: Crossroads of history. Sun Valley, CA: American History Press
- Laird, F.N. (1993). Participatory analysis, democracy, and technological decision making. *Science, Technology, and Human Values*, 18(3), pp.341+. Retrieved October 30, 1999 from the World Wide Web: <http://www.ebsco.com>
- Lee, Charles. (1997, March 6). *Environmental justice, urban revitalization, and brownfields: The search for authentic signs of hope—a report on the “public dialogues on urban revitalization and brownfields: envisioning healthy and sustainable communities.* Retrieved November 24, 1999 from the World Wide Web: <http://www.epa.gov/swerops/ej/html-doc/nejachtm.htm>
- Mendenhall, W., & Beaver, R.J. (Eds.). (1994). Introduction to probability and statistics. Belmont, CA: Duxbury Press.
- Meyer, P.B. (2000). Lessons from private sector brownfield redevelopers. *Journal of the American Planning Association*, 66(1), pp.46+. Retrieved March 12, 2001 from EBSCO database (Masterfile) on the World Wide Web: <http://www.ebsco.com>
- Middlesex County street address directory & city guide. (2000). Somerset, NJ: City Publishing Company, Inc.

- Middlesex County Vocational and Technical Schools. (2000, October 18). Perth Amboy: Groundbreaking ceremony. [Brochure].
- Miers, E. A. (1964) Where the Raritan Flows. New Brunswick, NJ: Rutgers University Press
- Moote, M.A., McClaran, M.P., & Chickering, D.K. (1997). Theory in practice: Applying participatory democracy theory to public land planning. Environmental Management, 21(6), 877-889.
- New Jersey Office of State Planning. (n.d.) *New Jersey brownfields redevelopment program*. Trenton, New Jersey. Retrieved January 30, 2001 from the World Wide Web: <http://www.state.nj.us/osp/brownfld/brownrtf.htm>
- New Jersey Department of Environmental Protection. (1999, May 20). *New brownfields and contaminated site act*. Trenton, New Jersey. Retrieved December 7, 1999 from the World Wide Web: <http://www.state.nj.us/dep/srp/publications/brownfields/1998/98brownf04.htm>
- New Jersey Department of Environmental Protection. (2000, August 2). *Meeting community needs through brownfield cleanups*. Trenton, New Jersey. Retrieved April 12, 2001 from the World Wide Web: <http://www.state.nj.us/dep/srp/brownfields/community.htm>
- New Jersey Department of Environmental Protection. (2000, August 2). *Site reuse opportunities and cleanup tools*. Trenton, New Jersey. Retrieved January 30, 2001 from the World Wide Web: http://www.state.nj.us/dep/srp/brownfields/site_reuse.htm
- Potapchuck, W.R., & Crocker, J.P. (1999). Exploring the elements of civic capital. *National Civic Review*, 88(3), pp.175+. Retrieved November 12, 2000 from the World Wide Web: <http://www.ebsco.com>
- Simrell King, C., Feltey, K.M., & O'Neil Susel, B. (1998). The question of participation: Toward authentic public participation in public administration. *Public Administration Review*, 58 (4), pp. 317+. Retrieved November 12, 2000 from the World Wide Web: <http://www.ebsco.com>
- Spyke, N.P. (1999). Public participation in environmental decisionmaking at the new millenium: Structuring new spheres of public influence. *Boston College Environmental Affairs Law Review*, 26(2), pp.263+. Retrieved October 27, 1999 from the World Wide Web: <http://www.ebsco.com>

- Tauxe, C.S. (1995). Marginalizing public participation in local planning: An ethnographic account. *Journal of the American Planning Association*, 61(4), pp.471+.
Retrieved March 22, 2000 from the World Wide Web: <http://www.ebsco.com>
- Vasseur, L., Lafrance, L., Annseau, C., Renaud, D., Morin, D., & Audet, T. (1997) Advisory committee: A powerful tool for helping decision makers in environmental issues. *Environmental Management*, 21(3), 359-365.
- Wall, J.P., & Pickersgill, H.E. (Eds.). (1921). History of Middlesex County, New Jersey: 1664-1920. New York: Lewis Historical Publishing Company, Inc.