

EXAMINING A ROLE FOR THE COMMUNITY REINVESTMENT ACT (CRA) FOR  
PRIVATE BROWNFIELD REINVESTMENT IN WORCESTER

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by

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## **Abstract**

Our project examined the roles of the Community Reinvestment Act for the private redevelopment and reinvestment of what are commonly known as brownfield sites. We interviewed prominent developers, lenders, and government officials in order to understand the development and lending process as it applies to the redevelopment of brownfield sites. The data from our interviews served as the basis for research policy recommendations to the Mayor and City Manager of the City of Worcester.

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## **Introduction**

What is Worcester's future? An inspection of Worcester's past has already been well documented. The catalog of achievements is long. Worcester's list of contributions to the evolution of America into an industrial powerhouse is well known, even in areas outside the city. Today some of the smokestacks still stand. Many of the buildings associated with the industrial expansion of the 19<sup>th</sup> and 20<sup>th</sup> centuries stand underutilized. These buildings may be reused for a different purpose, unrelated to the original manufacturing for which they were built.

Worcester's future may not be known except in retrospect. The forces that will mold, redevelop, and reshape Worcester are in play at present. These forces form a complex of interactions that relate to issues of redevelopment or reuse of existing parcels. Some have described the redevelopment process as a "three-dimensional chess game;" others have described the redevelopment process as: "every building has a story to tell."

Every building may have a story to tell but, sometimes the message is subtle and heard by few and sometimes the message is louder and heard by many. What does the passerby think when they drive on I 290 through Worcester? What story are those buildings telling? What is the story that the buildings tell to the pedestrian as he or she walks through any one of Worcester's many and diverse neighborhoods?

The neighborhoods and their building stock are diverse and so are the qualities of the parcels that inhabit the miles of city block. By parcel we mean both building and land. In some cases the building is in a particular shape where it could be retrofitted for a modern use. In some cases the building is in a shape where demolition and rebuilding might be less expensive than rehabilitating. Some times the land has levels of contamination that may lead to cleanup costs that aren't justified by the market rate for land.

This paper focuses on several issues related to land and its reuse. We especially focus on the redevelopment process, as we understand it through the perspectives of people with a high degree of skill in the redevelopment process. The perspectives that we sought came primarily from three groups: lenders, developers, and government officials.

Developer is used in its broadest sense and includes executives of the industrial development corporation, industrial bank, as well as prominent developers who work within a specific building concept. The developer is typically the person with an idea to create a particular use at a given location and has the related expertise necessary to accomplish the redevelopment. Government officials include a broad swath of municipal, state, and federal expertise including city councilors, state representatives, and executives with the city's development function. Lenders include vice presidents, CRA officers, and commercial loan officers from Worcester lending institutions.

Worcester relies on all three of these groups to help its transformation as it deals with the challenges of attracting private reinvestment of its underutilized spaces. Worcester sits at a unique place in its history. Today, a case can be made that Worcester's assets are sufficient and strong enough to leverage the western migration as business considers the opportunities of central Massachusetts. With skill the city may marshal the forces necessary to create job opportunities in the city. A component that may be of use to redevelopment is the Community Reinvestment Act (CRA).

This paper focuses on the CRA and how it may be used in the private reinvestment of brownfields in Worcester. Based upon research findings, recommendations will be made to the City of Worcester and the respective parties of the development process. The recommendations will be derived from information collected primarily through interviews. The collection of archival data, where relevant, will also be used to aid in our understanding of redevelopment issues. The interviews will be conducted with lenders, developers, and government officials.

This paper starts with an introduction and then the background/literature review section. In the background/literature section we first present an overview of how the modern city developed in the scientific/industrial era. We contrast the model city with Worcester's actual development as a city. In this context we first examine the factors of industrialization and then deindustrialization. Next we examine the CRA and issues related to it. Our next sections examine Worcester's possibilities then successful examples of its reuse of underutilized spaces are presented. The next section is the methodology. Here we describe how the interview questions were formed, the criteria for selected people to speak with, and how the collected data was analyzed through content analysis. The final sections present the research based policy recommendations in detail and the conclusion.

## **Background/Literature Review**

### **The City: Economic Expansion**

The urban growth experienced in the United States from the mid 19<sup>th</sup> century to the mid 20<sup>th</sup> century was dramatic. This urban growth, which occurred because of advancements in science and industry, has been well documented. This shift in population from rural to urban areas and the economic expansion that occurred led to the 'industrial' city. One characteristic of the industrial city is a rapid growth in its economy. The rapid growth in economy resulted in an expansion of small towns into large cities. These cities were home to growing populations and many industries. These industries produced textiles, steel, and other manufactured mass-produced goods. As these industries became more advanced there was a need for expansion. Continued expansion led to larger population and business densities within the city (Hall, 2001). Thompson describes the formation of industrial clusters as a model of how a city could be (1995, p 229-231). These clusters accounted for an urban growth complex in which like industries were initially found in groups. Such clusters would serve as anchors to other industries, trades, and professions, which developed around them. In time a great economy among trade, service, and manufacturing was formed. To meet this demand workers migrated to the cities from rural areas within America as well as coming from abroad (1965, p. 229-231). Other ways of describing the industrial city come from Hall (2001, p. 6-7) where he describes Burgess's concentric zone model, Hoyt's sector model, and Mann's model. Each of these models presents a generic physical layout of the industrial city. Common to these models is the location of classes of manufacturing activity in reference to other business districts and housing.

### **Worcester: Economic Expansion**

Worcester developed along similar but not identical lines as the idealized industrial city discussed above. In contrast to the concentric model much of Worcester's manufacturing developed along a north south corridor that ran adjacent to the railways. While it is beyond the scope of this paper to give more than an overview of



Worcester's significant industrial past, that past is important since it is ultimately responsible for the current trend in land and building use. The implications of the change in land use will be discussed elsewhere in this paper. Worcester during industrialization had a complex economy that included banking, mercantile and craft activity but the focus here is on the industrial past.

Worcester has grown slowly over the generations from about 200 residents in 1718 to about 7500 in 1840. The opening of the Blackstone Canal in 1828 and the coming of the railroads changed Worcester forever (Southwick, 1998, p. 13). The railway, being a key means of transportation, helped cause Worcester's expansion into an industrial city. In 1848 Worcester's citizens voted to become a city from a town. By 1898, after a half-century of industrialization, the city had six times more people than in 1848. The population passed the 100,000 mark in 1895 and continued to boom along with the city's industrial economy (Southwick, 1998, p. 31).

Examples of Worcester's industrial economy include the Washburn & Moen Manufacturing Company, which became the largest producer of wire rods and wire in the world. Its products included piano wire, insulated electrical wire, and barbed wire. Washburn & Moen also owned and operated the North Works, South Works, and Central Works. In 1899 they merged with United States Steel Corporation and created The American Steel and Wire Company (Knowlton, 1984). Other industries included the Munroe Organ Reed Company at 25 Union St (1889). The Worcester Barbed Wire Fence (1881) located at 49-51 Union St. The Hammond Organ Reed Factory (9 May Street) built between 1870 and 1880, which was one of the biggest organ reed factories in the world between 1890 and World War II (Knowlton, 1984).

Other example of Worcester's manufacturing ability was the Junction Shop Manufacturing District built between 1821-1925. The building is of the oldest mill buildings in Worcester. The Southbridge-Sargent Manufacturing District built in 1866 and 1892. The building was used for individual firms. Crompton Loom Works (132-142 Green Street) built in 1860. The Harding and Winter Streets manufacturing

District, built between 1870-1910 housed one of the biggest shoe manufacturers. Ashworth & Jones. Company (1511 Main Street) built in 1870 built for textile manufacturing. The Whittall Mills built in 1870's located between Crompton and Southbridge Streets. The mill was used to manufacture carpets (Knowlton, 1984).

### **The City: Economic Transition**

According to Hall (2001, p. 14) geography and related disciplines have formulated many earlier models and theories to understand urbanization. Many of these theories have stemmed from contrary perspectives as one theory replaced another. He states, "[t]he inadequacy of individual urban models and theories has been continually exposed. Either they have been shown to have been theoretically weak, partial or that cities have changed to such a degree that the models have become redundant" (2001, p. 15). But, the fact remains that over the last 40 years the economy of America has changed in dramatic ways. This change may be complex and difficult to model but is no less real. This change can be marked generally as a decrease in the manufacturing employment and an increase in service employment, as real wages fell. Hall states, "the absolute rise in the number of service sector jobs has been significantly less than the absolute number of jobs lost in the manufacturing sector" (2001, p. 46). This change also coincides with census data gathered by Thurrow for 1973 to 1992 where four of five quintiles show a decrease in male, year round, full time wages. These decreases range from -10 percent for the fourth quintile to -23 percent for the bottom quintile. The household income for this time period shows a decrease for three of the five quintiles ranging from -0.5 percent for the third quintile to -3 percent for the fifth quintile (1996, p. 23).

Perhaps, the technological improvements that led to increased productivity in the first place had unforeseen consequences. After World War II transportation increased as the interstate highway system was built. Home and manufacturing space outside of the city became cheaper. Technologies were being realized for civilian uses because of the war effort. Slowly competitors around the globe were emerging. In time

many manufacturers either went bankrupt or relocated to areas where labor and material costs were less expensive. This process of reduced manufacturing is known generally as de-industrialization. The term cannot be applied in the same way to all cities as some cities fared better than others. As Thompson puts it, “[w]e might postulate a crisis theory of human behavior in regional economic development: a community rises to the occasion in a variation on the Toynbee theme of ‘challenge and response’” (1995, p. 234).

### **Worcester: Economic Transition**

Some cities have survived the challenges of changing urban economics better than others. Evidence of Worcester’s response has been its ability to develop new industries while preserving older ones, to leverage its educational resources, and preserve its quality of life. An example of the new industry is the biomedical industry, which is clustered off of Belmont St. This industry is nearby the University of Massachusetts Medical Center, which is the state research and teaching hospital. An example of an older industry is Norton/St. Gobain, which is one of the world’s largest manufacturers of abrasives. Examples of the city’s educational resources are University of Massachusetts, Worcester Polytechnic Institute, Clark University, and the College of the Holy Cross as well as many others. Examples of its quality of life include the parks such as Green Hill and Elm Park, preserves such as Broad Meadow Brook, and waterways such as Lake Quinsigamond. In addition there are the city’s people, the glue that binds the neighborhoods. As Thompson describes the call to challenge, “building on a base of superior higher educational facilities that area spawned a complex of research and development work and manufacturing activity in R&D oriented industries almost overnight, greatly softening the blow of losing the textile, steel, and shoe industries” (1995, p. 235).

In addition to softening the blow of losing the textile, steel, and shoe industries there has been an abundance of small business activity, much of which resides in the former manufacturing spaces. Today the Northworks building has a high occupancy

rate and contains many small businesses (Knowlton, 1984). The 25 Union St. site now houses a restaurant and club, plus two small businesses. The 41-50 Union St. space is now rented to many small businesses. There are many former manufacturing buildings that house furniture companies and athletic clubs but there are still many former factory buildings and land that sit underutilized. A subset of these underutilized properties is either known to or is suspected of containing ground or building contaminants, which are remnants from an earlier age. The real or perceived existence of contaminants may keep interested parties from privately reinvesting in properties in Worcester either because of cost or fears associated with risk of liability. The challenge is in finding tools that may help in the private reinvestment of underutilized land and buildings, including the subset called brownfields. One such tool may be the Community Reinvestment Act (CRA). The CRA may be of use to the redevelopment of brownfield sites because it provides areas in which lenders can receive CRA credit for certain lending activities.

### **History of the Community Reinvestment Act (CRA)**

The CRA is legislation intended to spur loan activity by lending institutions to the areas they serve. In 1977, Congress enacted the CRA to encourage that federally insured banks and thrifts meet the credit needs of their entire community, including low and moderate-income neighborhoods, consistent with safe and sound banking practices (2002, [www.occ.treasury.gov](http://www.occ.treasury.gov)). According to a Harvard University Joint Center for Housing Study, the CRA was a way to address redlining and the systematic denial of credit to “lower income and minority neighborhoods (2002, p. iii). The CRA itself “was built from several earlier pieces of local and federal legislation” (JCHS, 2002, p. 19).

The CRA is administered by several federal agencies. These regulatory agencies are the Office of the Comptroller of the Currency, Treasury (OCC); Board of Governors of the Federal Reserve System (Board); Federal Deposit Insurance Corporation (FDIC); Office of Thrift Supervision, Treasury (OTS).

Though enacted in 1977, the CRA is dynamic and has continued to evolve. In 1989, Congress strengthened the CRA through the Financial Institutions Reform, Recovery, and Enforcement Act (FIRREA). According to the JCHS study changes to the CRA were needed because the legislation had neither sufficient tools to praise successful performance or punish poor behavior. This act allowed for additional data such as race, gender, and income to be disclosed as part of Home Mortgage Disclosure (HMDA) Act reporting requirements. HMDA is a separate piece of legislation that requires lenders with assets over \$10 million to report the amounts of mortgages by census tract. “This additional data, particularly when correlated with census data... provided a greatly enhanced statistical basis for analyzing the geographic and demographic distribution of home mortgage loans” (JCHS, 2002, p. 21).

Additional changes to the CRA were enacted in 1995. The 1995 changes focused on better assessing a lender’s actual performance in meeting the CRA obligations in areas where the lender has its branches and ATM machines. “The 1995 regulations provided for specific tests for three different lender types, sizes, and businesses (JCHS, 2002, p. 22).” Recent changes to the CRA occurred under the Gramm-Leach-Bliley Modernization Act (1999). This act “mandates that depository institutions must have satisfactory CRA ratings before the institution...can engage in any of the expanded financial activities permitted under the law” (JCHS, 2002, p. 23).

The CRA continues to change. In 2001 another review of the CRA was undertaken. This review, like previous reviews of the CRA, was in response to contentions that the CRA was not being used as effectively as it could to meet the credit needs of the communities those lenders serve. Compounding the problem was changes in banking regulations that affected the banking structure ([www. occ.treasury.gov](http://www.occ.treasury.gov)).

The CRA has evolved to be a tool that may have a role to play in redeveloping underutilized sites such as brownfields. Agencies such as the Environmental Protection Agency (EPA) in coordination with the OCC have developed a Brownfields Action Agenda. This agenda is intended to “create incentives within the CRA regulations for

economic revitalization and development” (2002, [www.epa.gov](http://www.epa.gov)). By lending for brownfield redevelopment banks can receive community development credits. “Lenders subject to the CRA can now claim community development loan credits for loans made to help finance the environmental cleanup or redevelopment of an industrial site when it is part of an effort to revitalize the low- and moderate- income community in which the site is located (2002, [www.epa.gov](http://www.epa.gov)).”

### **CRA Tests**

A lending institution that is subject to the CRA is periodically evaluated for its compliance with CRA regulations. The lending institution is evaluated under one or several tests depending on how the lending institution is defined by CRA regulations. The possible tests are: lending, service, investment, and the community development test.

The lending test is used to

evaluate an institution’s lending performance by considering the number and amount of loans originated or purchased by the institution in its assessment area; the geographic distribution of its lending; characteristics, such as income level, of its borrowers; its community development lending; and its use of innovative or flexible lending practices to address the credit needs of low- or moderate-income individuals or geographies in a safe and sound manner. ([www.occ.treasury.gov](http://www.occ.treasury.gov))

Examples of loan activity that count toward satisfying the lending test is small business administration loans (SBA) made to business and mortgage loans to low and moderate income households (Sovereign, 2001, p. 5).

The investment test is another test that is used to determine whether a lender is meeting the credit needs of the community that it serves. The investment test is “based on the dollar amount of qualified investments, their innovativeness or complexity, their responsiveness to credit and community development needs” ([www.occ.treasury.gov](http://www.occ.treasury.gov)).

Examples of activities that count toward satisfying the investment test are investments

in community development funds such as Massachusetts Affordable Housing Alliance (Sovereign, 2001, p. 6).

The service test is the third test used to determine how well a lender subject to the CRA is meeting the credit needs of the community that it serves. The service test is based on the “availability and effectiveness of a [lender’s] system for delivering retail banking services and the extent and innovativeness of its community development services” (2002 www. ffiec.gov). An example of activity within the service test is the addition of bank branches in an institution’s lending area. For example, in the case of Commerce bank that would include the opening of three full service banks since 1997, the date of the bank’s last CRA performance evaluation (Performance Evaluation CBTC, 2001, p. 21).

The community development test “looks at the institution’s record of helping to meet the credit needs of its assessment area through community development lending, qualified investments, or community development services (JCHS, 2002, p. 27).” The lending institution is evaluated for the amount, complexity, and innovativeness of such lending activity. Examples of services that fall under this test are a lender’s involvement with organizations such as Worcester Common Ground, an organization that promotes affordable housing in Worcester (Performance Evaluation CBTC, 2001, p. 23).

### **CRA Examinations**

In addition to the four lending tests there are four examination types. The examination types are based on the size of the lending institution or the type of business that the lender chooses to conduct. The examination types are small depository institution, large depository institution, wholesale and limited purpose banks, and strategic option examinations.

The small depository test is for banks with assets under \$250 million. The bank is tested primarily for its lending record. Regulators are interested in the amount and

kind of its loan activity within its assessment area and “the distribution of lending by borrower income and business or farm size” (JCHS, 2002, p24).

The large depository test is for lenders that generally have a regional or national reach. Worcester is currently served by many of these banks. The large depository test applies the lending, service, and investment tests to determine how well a bank is serving the credit needs of its assessment area (JCHS, 2002, p26).

The wholesale and limited purpose bank test applies to lenders that “are not in the business of making home mortgage, small business/small farm, or consumer loans to retail customers” (JCHS, 2002, p26). Wholesale banks are examined only under the community development test. The wholesale bank typically has a more narrow lending focus than the large or small depository institution. Banks of this type include credit card companies and home mortgage companies (JCHS, 2002, p. 26).

The strategic plan option is not a type of lender, but a determination. Under this option a lender sets specific goals it expects to attain in meeting the credit needs of its assessment area. Lenders that are approved for the strategic plan are evaluated under the lending, investment, and service tests (JCHS, 2002, p27).

### **CRA Compliance**

Lenders subject to the CRA have several reasons for wanting to comply with the CRA and its regulations. These reasons include goodwill, interest in seeing their lending areas improve, and interest in business expansion. Of the three reasons stated above business expansion is the area that can be most affected by CRA compliance. If a lender does not pass the CRA examination for its type of lending organization its future business activities may be limited. For example, if a bank is of the large depository type it is subject to the lending, investment, and service tests. These test components tally to an overall rating. If the rating falls below satisfactory then the large depository institution can be denied approval on mergers by regulators (Fontaine, 2002, p.9).

Periodically banks are evaluated by regulators for their CRA compliance and undergo a CRA performance evaluation administered by the FDIC. The FDIC regulators



evaluate a given lending institution subject to the CRA test that applies to it. Each of these tests is ultimately concerned with how well a lending institution meets the credit needs of its assessment area. The CRA performance evaluation contains sections for: general information, the institution's rating—including subsections on how that rating was derived, and an appendix section. The major component of the evaluation report is the institution rating and related subsections. In these subsections the lending institution and its assessment area are described, the overall rating is listed, tables quantify the discussion of the test components, and conclusions are drawn about the lenders' performance. This component of the CRA evaluation is quite detailed in evaluating a bank's performance. This research will rely on these reports along with other methods to evaluate the impact of a lender in serving the credit needs of its assessment area. At this point it is beyond the scope of this section to describe in detail the CRA evaluation. However, it may be useful to note that our initial research shows that most banks that serve the assessment area that includes Worcester are more often of the large depository type. One peculiarity of the large depository institution exam is that of the four tests "the lending test has more weight than the investment and service tests" (Fontaine, 2002, p. 9).

### **CRA Community Lending Activity**

The lending component of the large depository institution test carries the most weight under a CRA performance evaluation. The CRA typically allows lenders to make "community loans and investments (Sovereign Bank, 2001, p. 2)" in five major categories: affordable housing initiatives in the form of loans and tax credits, small business support in the form of loans and small business administration lending, consumer finance in the form of auto loans and home improvement loans, community development loans, contributions and grants. (Sovereign Bank, 2001, p. 2). This type of lending activity is also referred to as community development lending and is defined as lending activity that:

has community development as its primary purpose; has not been reported or collected by the bank or an affiliate for consideration in the bank's assessment area as a home mortgage, small business, small farm, or consumer loan unless it is a multifamily loan; and benefits the bank's assessment area or a broader statewide or regional area that includes the assessment area (Performance Evaluation. CBTC, 2001, p.17).

According to the CRA performance evaluation for the local Commerce Bank and Trust Company (CBTC) "CBTC's level of community development lending was low with only one activity (for three loans) which qualifie[d] for this evaluation" (Performance Eval. CBTC, 2001, p. 17). These loans centered on construction loans for low to moderate income housing projects.

For another bank the amount of community development lending was low and accounted for approximately 9% of total contributions, grants, and loans combined. The specific purposes of the community development loans were not listed. (Sovereign Bank, 2001, p 2). According to the CRA definition for community development lending and the CRA definition for the purpose of community development, as a means of:

1) providing affordable housing for low- or moderate- income individuals or areas, 2) providing community services targeting low- or moderate-income individuals or areas, 3) promoting economic development by financing small businesses, or 4) revitalizing or stabilizing low- and moderate-income geographies. (Performance Evaluation CBTC, 2001, p.17).

### **CRA Summary**

The CRA has evolved from its origins as a way of inducing greater home mortgage participation among the low and moderate-income populations. Today the CRA may be useful in inducing private reinvestment of underutilized parcels. Opportunities exist in Worcester, since a number of underutilized properties lie within the lending institution's assessment areas. The lender is in a prime position to meet its CRA obligation by lending, especially under the community development aspects of the CRA. However, background reading for this project has shown that lenders are less inclined to lend for the redevelopment of industrial spaces than for small business and home mortgage. We examine the consequences of this lending habit in the next section.

### **Issues Facing CRA Community Lending Activity**

It is difficult to account for why lending levels are lower for industrial spaces than for other uses. Reasons may include a lender's aversion to the real or perceived risk that may be associated with this type of investment, lack of suitable developers to loan to, or insufficient planning on the municipality's part. Other reasons that we may be unaware of could and likely do play a role in lower loan levels for underutilized industrial properties. Whatever the case there seems to be an amount of resistance on the lender's part when it comes to lending for community development reasons, including for brownfield redevelopment.

Much discussion has occurred on the CRA already. This discussion includes writings on the policy aspects of the CRA. Knowledgeable institutions, such as Harvard's Joint Center for Housing Studies, offer the following for why there might be resistance to better utilizing the CRA for community lending activities:

[a]necdotal evidence suggests that...mortgage lending carries the most weight. To the extent that this is true, it is a reflection of the fact that analysis of mortgage lending is supported by [Home Mortgage Disclosure Act] HMDA data, which, while imperfect, are more widely accessible, comprehensive, and available over a longer duration, than data for small business or community development lending (JCHS, 2002, p. 34).

Because of the HMDA, which requires banks to use census tract data in analyzing mortgage lending in urban areas much more lending information has been generated about the consumer mortgage market than either small business or community development lending (JCHS, 2002, p. 19).

While the CRA exists under Federal law and contains a community development lending aspect, the use of the CRA for community development loan activity seems to be used least. A certain amount of resistance toward loan activity of this type seems to play a role in the limited use of the community development reason for generating loan activity. In the report "Insights Into the Practice of Community Reinvestment Act Lending" one focus group relates the following:

[o]pinions varied as to how profitable the community development loans were and are. Lenders from New York and Atlanta, however, agreed that although some community development lending deals are profitable, capital could more efficiently be deployed in other forms of lending. The New Yorkers insisted that these types of loans take more effort than others and that without the CRA, their banks would leave the community development lending business (Belsky, Lambert, and von Hoffman 2000, p. 18).

The above discussion centered on the CRA's role and the lenders who are obligated under it because the CRA's role in generating private reinvestment is the aim of this research. Of course, questions remain on the attitudes of developers regarding their desire to redevelop former industrial spaces. Developers may not be aware that the CRA exists or if they know it exists they may not know what is required in the loan application process. Developers may also be hesitant to invest due to liability and cost issues associated with redeveloping industrial parcels. If a property contains contamination the issue of redevelopment can be greatly complicated. Currently, the federal and state

liability schemes [are] incredibly broad. [They] have impose[d] liability, strictly, jointly, and severally upon current owners of the property at the time of disposal, transporters of hazardous substances to the contaminated property and arranger's of disposal of hazardous substances at the property. This liability is retroactive (Belsky, 1998 p.8).

### **CRA and Brownfield Redevelopment**

The CRA may be a useful tool for the redevelopment of brownfield sites in Worcester. As described, lenders are subject to CRA compliance exams. These compliance exams evaluate a lender according to type and business. Depending on the type of institution the appropriate tests are applied. In most cases institutions that have Worcester in their assessment area are large depository institutions. These institutions are subject to three tests: lending, service, and investment. The test that carries the most weight according to CRA regulations is the lending test. The lending test focuses on how well banks meet the credit needs of its assessment area. The lending test includes defined community development lending types as well as defined community development purposes. It is each of the lending types and purposes that

can be of use toward the redevelopment of brownfields in Worcester. More importantly if the CRA is aligned with the missions of agencies like the EPA and the Department of Environmental Protection (DEP) then much progress may happen in the redevelopment of brownfield sites, especially if the liability and cost issues can be resolved.

The EPA, through its brownfields economic initiative, is already working toward the redevelopment of some sites. The initiative “is designed to encourage economic activity in urban areas. It makes financing of industrial property redevelopment more attractive to large lenders by providing CRA credit while aiding the communities in which they operate (2002, [www.epa.gov](http://www.epa.gov)).” The EPA also administers a \$1 million dollar revolving loan fund for redevelopment as well as a pilot program whose aim is the assistance of brownfield sites (2002, [www.epa.gov](http://www.epa.gov)).

### **Worcester’s Possibilities**

Cities like Worcester, in particular, have practical reasons for wanting to see the community development aspect of CRA better used. This reason is for redeveloping its land. Cities do not have broad swaths of virgin land at their disposal and therefore, must reuse, renew, and recycle parts of its “more than 2000 acres of industrially zoned land” (Jones-D’Agostino, 2001, p. 1). Cities generally have a limited land mass zoned for commercial use and so must work to maximize tax revenue that may be generated under commercial use. One way of doing this is by working with lenders and developers in the private reinvestment of underutilized lands. The CRA as part of a larger strategy can prove to be a useful tool in generating taxes that can pay for a city’s municipal services. While the CRA is one tool at the municipality’s disposal it may have the potential to be a powerful one when it comes to land utilization. The magnitude of the potential impact of redeveloping under utilized sites, including brownfields is significant. According to Mayor Timothy Murray of Worcester, if all known contaminated sites could be brought back on line and in developable condition all at the same time then the city would see an increase of 30 million dollars in tax revenue.

This tax revenue is based on the estimated increase in assessed land value rising from 300 million to 1 billion dollars (Murray, 2002).

According to the Mayor of Worcester the reclamation of underutilized lands is perhaps the greatest challenge to the city (Murray, 2002). This challenge could also present the greatest opportunity for the city to grow its tax base. Over 90% of the city's revenues come from two sources: local aid and real estate/personal property taxes. In 1992 the local aid contribution to general fund revenues for the city was 42.4%. In 2001 it was 53.8%. In 1992 the real estate/personal property tax contribution to the general fund was 48%. In 2001 it was 36.5%. The funding sources are always important and no less important during hard economic times. If the city could grow its tax base, then perhaps it could rely less on the state contribution in local aid. One major way to grow that tax base would be to return underutilized or brownfields to full utilization (Comprehensive Annual Financial Report, 2001 p. 145-146).

### **Examples of Successful Reuse**

Through the use of an EPA revolving loan fund and persistent interest in redeveloping Worcester's industrial sites progress may be near. Already, examples of successful redevelopment of contaminated land exist. Two notable examples are the Marriot Hotel on Grove Street in Worcester and the Worcester Driving Range and Learning Center on Putnam Lane.

The current location of the Marriot Hotel was once a parking lot. Thirty years before the parking lot, it was the location of a church and a rectory. The owner of the site, Parker Realty Corp., discovered that the other half of the site was an U.S. Steel Foundry. He conducted pollution tests and found that the site was contaminated with significant levels of lead that could have gotten into the groundwater. The removal of the lead consisted of removing soil containing the lead and treating the area with cement to encapsulate the lead; this would not allow the lead to leak into the ground water. Marriot purchased the property for \$1.2 million and the clean up cost was

\$105,000. The cost to build the hotel was approximately \$13.2million dollars and employs 50 people. In the end the property generates annual tax revenue of \$50,000 (Worcester Business Journal, 2002).

The current location of the Worcester Driving Range and Learning Center was once the location of a slaughterhouse and meat packaging facility, and a meat delivery depot. Later the location was an icehouse and then in 1931 until 1990 the site was a petroleum distribution terminal for heating oil, diesel fuel, gasoline, lubricants and other automotive supplies. The site had \$1.8 million in liens, 40 tanks of contaminated material 8,000 to 20,000 gallons each, fines and back taxes. The cost for the clean up was estimated and then seven additional tanks were found forty feet underground which cost \$70,000 in out of pocket expenses. With help from the lien holders the owners were able to get the liens reduced and the city reduced some fines and back taxes. The site went from a value of \$212,000 to almost \$1 million dollars. The owners are also working to restore the remaining portion of the factory with \$100,000 from Massachusetts Historical Society and make it a restaurant and commercial space. The owners also hope to add a miniature golf course and batting cages (Worcester Business Journal, 2002).

### **Worcester Growth and Implications**

The challenge facing Worcester is how to keep growing its tax base. According to the Worcester Regional Research Bureau (WRRB) report *Proposals For Promoting Economic Development in Worcester* Worcester's tax base has grown 3.1% compared to the statewide growth of 16.6%. Also, according to the WRRB report, Worcester's "new construction spending on commercial development has declined by 43.08% since 1994, while new residential construction spending declined by 39.1% in this same period. This disturbing trend is all the more worrisome when one considers that statewide new construction spending grew 48.1% between FY94 and FY99 (2000, p.6 and 7).

The report continues by describing the potential impact of the above trends in sluggish growth. The slow growth of the tax base could lead to:

- A decrease in tax revenue available for infrastructure
- A decrease in economic development incentives
- A decrease in revenue needed to pay down City debt
- A decrease in the city's bond rating
- Further increases in residential and commercial tax rates

As Jones-D'Agostino confirms, "One of the major deterrents to an expansion of Worcester's economic base has been the lack of readily developable industrial sites. Such development is necessary for economic expansion leading to an increased tax base, the creation of new jobs, elimination of blight and neighborhood revitalization" (2001, p. 1).

The prospects of community development need not be perceived as bleak. But, the solution will not occur quickly either. Several factors must come into play to produce a coordinated and productive effort in making better use of underdeveloped sites. Significant effort has already been expended in the effort of removing contaminants from former industrial sites. And these efforts continue as Jones-D'Agostino reports: "Until recently, there wasn't a system in place to comprehensively address the problems of contaminated sites and their future redevelopment (2001, p.1).

### **Summary**

Investigation into how the CRA might be better used to promote the private reinvestment of brownfields in Worcester has shown that the CRA has not been used as effectively as it might be. Our initial research has also shown that the nature of the problem is complex. The complexity is due to the range of practical issues that surround land use. These issues include zoning, taxation, developer's and lender's perception of process, municipal expertise, and the several jurisdictions of regulators. The challenge is in how to concisely present and make available relevant information in the development process and to convince all stakeholders that they ultimately will benefit by their investment and that their aims are not in conflict. By understanding the scope of the problem and what the stakeholders might gain, we hope to make



research based policy recommendations to the city on how private reinvestment may be better fostered.

## **Methodology**

### **Introduction**

Worcester's revival, urban growth, and transformation will ultimately occur because of the concerted actions of several groups. This section discusses who these groups are, why they are important, how data from them was collected, and how that data was analyzed, and what the analysis was used for.

Lenders, developers, and government officials are important because they can assert the greatest change through their individual actions. The power of the lender lies in making capital available, especially under the CRA. The power of the developer lies in using that capital to increase utilization of industrial spaces through construction activity. The power of the city lies in its planning, taxation, and legislation capabilities, especially for the purpose of encouraging redevelopment.

The prime means of data collection, from each of these groups, was interviews with the minor use of archival data. Interviews provided real time data from people with expertise in their respective fields of lending, developing, and planning. Archival data provided historical context for decision making in each of the areas. Multiple methods were used in this research because, as Singleton (1993) states, the use of multiple approaches to a research question can enable an investigator to "zero in" and find answers or information sought which may not be available by one means alone (p. 391).

After information was gathered through interviews and the collection of archival data it was analyzed through content analysis: a method that evaluates trends that emerge in the data, whether through the written or spoken word. This type of analysis helped us to derive and evaluate opinions and facts that came from the various stakeholders. Finally, we synthesized the analysis into recommendations to the city of Worcester for its consideration. These recommendations focused on how the city can promote private investment of brownfield sites. In the sections that follow we will detail our methods of data collection and means of analysis.

## **Lenders**

Lenders are important agents that may support the needs of cities in transformation. Lenders, through their business practices, especially through the Community Reinvestment Act (CRA), can play a major role in determining Worcester's future. Issues relating to lenders include the amount and frequency of lending to applicants interested in redeveloping industrial sites. As discussed above residential projects are more likely to receive funding than non-residential projects. We're interested in understanding the lender's perspective for its lending behavior. Also, we're interested in understanding the criteria that lenders apply when making loan decisions under the CRA. We analyzed what banks look at when they review loan applications in general and what they look for in applications that are for the redevelopment of underutilized properties including brownfield sites. In addition to these issues, other questions were formulated that relate to the goals of this project.

The answers to these questions came from interviews and the collection of archival data. First, in order to determine what banks exist in the assessment area of which Worcester is a part, we sought listings of lenders by several means. These means included business listings available through publications such as the Worcester Business Journal and through the list of banks that appear on the FDIC website. Each of these resources was locally available either online or in hard copy. In addition we relied on personal contacts. From these resources we then identified personnel whose responsibilities included administration of loan activity under the CRA, commercial, and non-commercial real estate lending.

To find this data on lending practices we used a purposeful sample of loan administrators from banks including the distributors of CRA loans. Maxwell (1996) states that a purposeful sample "is a strategy in which particular settings, persons, or events are selected deliberately in order to provide important information that can't be gotten as well from other choices" (p. 70). Since lending practices differ across lenders it seemed important to assess lending activity from various banks and to find out how

projects have been funded under both CRA and non-CRA means. With that sample we conducted partially structured interviews. Singleton (1993) states that partially structured interviews have “specific objectives, but the interviewer would be limited to certain subtopics, and key questions would be developed in advance (p. 249).” Questions were developed in advance and asked to all lenders interviewed. The reason Singleton (1993) recommends using partially structured interviews is because this method “allow[s] maximum flexibility in the development of hypothesis and theory (p. 249).” The understanding the dynamics by which lending occurs led to theories developed from the practical and observable activity of lenders.

### **Developers**

Developers are also important agents of transformation. An innovative developer can purchase a building and convert it into housing, office, or manufacturing space. Developers can purchase underutilized land and through private redevelopment create new land and building uses. If a developer purchases contaminated land or buildings, developers may also be able to create new uses in addition to enhancing the environment. However, developers seem to be hesitant to invest in sites in which there is either the real or perceived threat of contamination, either because of potential liability or cost issues, especially where a large investment needs to be justified based on rates of return. We were interested in understanding the developer’s perspective. Issues related to better understanding the needs of developers included assessing the criteria that they used in evaluating investment decisions for both industrial and non-industrial projects, their perceptions on underutilized properties including brownfields, and their levels of awareness regarding the CRA.

The answers to these questions were sought through interviews and the collection of archival data. First, a list of developers was generated primarily through personal contacts. This list allowed us to identify a range of companies based on development activity and sales volume. We interviewed large developers currently doing

business in Massachusetts, which have regional reach, based upon prior development experience of both brownfield and non-brownfield projects. In addition we interviewed smaller companies and agencies involved in the construction or redevelopment of commercial properties.

To better understand the commercial loan process we asked questions about the application processes and the other issues of interest. We chose a number of developers, so that we got a range in both types and gross sales of business. The experiences that these developers had in the past were extremely important to this project. Interviewing these developers provided a background of how past projects were funded both by the developer and by banks and their relationship with each other.

We conducted partially structured interviews with those developers chosen for the sample. These partially structured interviews allowed us to gain information on a variety of topics related to developers and their practices regarding the redevelopment of brownfield sites versus non-brownfield sites. We focused on a range of questions so that we may gather the most amount of information related to developers. The people we sought to interview included executives of industrial development corporations, prominent local developers, and executives of industrial development banks because of their past experiences with both brownfield and non brownfield projects. A key to gathering data from partially structured interviews was to establish validity in our findings. According to Maxwell (1996), validity “refer[s] to the correctness or credibility of a description, conclusion, explanation, or other account” that is generated from a respondent (p. 87).

### **City and Government Officials**

Government officials can also be important agents of change. Perhaps better than other groups, the city has a leadership position that it can use to bring lenders and developers together for common purposes, especially the redevelopment of underutilized sites. Municipal government, through its planning, taxation, and legislative functions, can direct material and money into projects that are of major

interest to the city. Issues related to the municipality include its level of planning on redevelopment issues, ability to get grant money from federal and states agencies, and knowledge of successful redevelopment in other parts of the country, elements which might be used in Worcester.

In order to understand the city's perspective and what it can do to encourage private reinvestment, we conducted interviews and gathered archival data from city and government officials. The list of interviews was generated from the organizational flow chart from the city of Worcester, which was available from City Hall and through personal contacts. We were interested in interviewing government officials in a variety of positions within government, especially officials who have knowledge on redevelopment and planning issues. The government and city officials included a state representative, city councilors, and an executive of economic development.

Once we established our sample of government officials we conducted partially structured interviews. A partially structured interview provided a range of information on a variety of topics related to this research. The reason Singleton (1993) recommends for the use of partially structured interviews is that this method "allow[s] maximum flexibility in the development of hypothesis and theory" (p. 249). The benefits of interviews were that they "offer[ed] greater flexibility in the type and format of questions, provide[d] the [interviewee] the opportunity to clarify responses, and tend[ed] to have higher response rates (Singleton, 1993, p. 278)."

### **Data Analysis**

Many data analysis methods were considered for this project, but the content analysis of interviews and archival data seemed to be the most appropriate for this research. According to Berg, content analysis "is a particularly beneficial procedure for assessing events or processes in social groups when public records exist" (p. 259). This was the case for archival data. Also, Berg states that "if researchers use content analysis to analyze interview data or responses to open ended questions" that the

weakness of “locating unobtrusive messages relevant to particular research questions” is “virtually nonexistent” (p. 259). This was the case for interviews.

Content analysis “is a category of data analysis procedures used by researchers for analyzing the content of any communication. This is done by reducing the total content of a communication to a set of categories that represent certain characteristics of the research topic. From these categories inferences can be made about the meaning of the communication from the interlocutor’s perspective (McDonnell and Krueger, 2002, p. 1)”. The general framework of content analysis includes the following steps, from Berg:

1. Collect data
2. Analytically develop or inductively identify codes in the data
3. Transform the codes into themes
4. Sort the materials according to categories
5. Examine sorted materials to isolate patterns
6. Consider patterns in light of previous research and theory

Besides being an appropriate method of data analysis content analysis offered several advantages to this project. An advantage of this method is its cost effectiveness. Both archival data and interviews are typically inexpensive and easy to acquire or conduct (p. 259). Another advantage of content analysis applies to archival data: analysis of archival data allows historical trends to be observed (Berg, p. 258), since many documents can be analyzed across time for common themes that may emerge.

Fundamental to the method of content analysis is the decision of what to count within the communication and what criteria will be used for counting those things. Examples of items counted include words, themes, characters, paragraphs, items, concepts, or semantics. Reasons for counting those things often emerge inductively as the researcher immerses himself/herself in the problem of analyzing the source data. In general, content analysis was used to analyze the content of interviews. First, three questionnaires were created. Second, each questionnaire was divided. Within each section specific questions were asked. After each interview the conversation was

transcribed and then the process outlined above was used to identify themes that emerged from the data.

### **Methodology Summary**

Collecting information from a variety of sources: lenders, developers, and government officials allowed the problem to be described from many sides. First, data was gathered through the design of a partially structured interview and collection of archival data. After the data was collected via interviews with lenders, developers, and government officials we analyzed the data through content analysis. We were interested in drawing inferences in a systematic way based upon the source information. Content analysis is seen as the most useful method to apply to interview data because, according to Singleton (1993), content analysis allows the researcher to “reduce the total content of a communication to a set of categories that represent some characteristics of research interest (p. 381).” Once we derived the characteristics of interest we presented the results in the data analysis served as the foundation for recommendations.



## **Data Analysis**

### **Introduction**

A top-level analysis of the collected data for this project shows that the redevelopment process in Worcester is a complex issue. General themes, which will be investigated more fully in the course of this paper, emerge from the collected data: 1. A similar process for development exists for both non-brownfield and brownfield redevelopment. 2. Roles seem to be well defined for each party in the development process. 3. Development opportunities defined according to traditional market analysis seem to be present in the city. 4. Opinions vary within and between groups as to the quality of the technical and financial assistance available for the brownfield redevelopment process. 5. Legislation such as the CRA may have a role to play in private redevelopment of underutilized spaces. The nature of this role will be explored below.

In general a process for development exists. The process has several steps. Briefly the steps are

- Identify a location,
- Find out what levels of contamination, if any, exist both under and above ground
- Determine the buildings use and prepare a set of plans
- Find out what forms of special financing and tax credits may be available
- Work with agencies that can provide technical assistance
- Negotiate sale price considering contamination if it exists
- Consider environmental insurance and come to agreement with seller of property
- Finance the project
- Cleanup property
- Open for business

For each of the development steps listed above there exist a set of procedures, programs, and statute that are part of that step in the redevelopment process. The major difference between a sales agreement for a contaminated parcel versus an uncontaminated parcel is in the way that the risk associated with contamination is mitigated and or negotiated into the sale price. Also, financing may occur at various stages of the redevelopment process, depending on the capabilities of the developer.

The roles seem to be well defined for each party in the redevelopment process. The main participants are lenders, developers, and government officials. On the whole each of these groups provides specific technical and or financial expertise on issues related to their part of the redevelopment process.

In addition to general themes that emerged across groups specific themes emerged within each group. The themes emerged when the individual answers from the interviews were considered in the aggregate for each group. At this layer of abstraction the responses to the questions were analyzed. The themes that emerged were recorded and commented on. The lenders, developers, and government official's questions appear in the appendix to this paper. Our agreement with all of the groups and the individuals who agreed to be interviewed was to use their interview responses only in the aggregate and not to identify the speaker in such a way that either his or her name or firm could be identified.

In general, some interviews were more wide-ranging and conversational than others. As the questionnaire states: the questions are meant to serve as a guide. Some of the answers that were analyzed for a given question may have been generated indirectly as the flow of conversation naturally occurred. In most cases the approach was more that of a conversation than strict question then answer and so on. We believe that this format allowed the speaker to touch on what he or she considered to be important to the answer.

Also, in some cases due to travel or time restrictions we did not meet with the lender, developer, or government official personally. In these instances we relied on other methods such as communicating and then receiving our questions by email after an initial phone contact was made of via teleconference. We found these methods to be less preferred for the reason stated above. However, in those instances where the electronic medium could not be avoided we appreciate the time devoted by those replying. The data analysis and the recommendations for each group are discussed in

the following sections. First, we present the data and recommendations for the lender group, then the developer group and finally the government official group.

### **Lenders' Data Analysis**

The data for the lender's section for this project was collected from eight FDIC insured banking institutions located in Worcester, Massachusetts. The lenders interviewed were CRA Officers, Commercial Loan Officers, Vice Presidents of Commercial Lending, Vice Presidents of Community Investment, and Chief Operating Officers. One of the requirements of these banking institutions was that Worcester was part of their assessment area. This means that these institutions lent to Worcester and were also graded by CRA regulators or will be graded in the future on lending in Worcester.

Each data source was given a set of questions, lenders interview questions, which were used to prove or disprove four main hypothesis. The first hypothesis was that there is a lack of regulatory incentive for banks. In preliminary research it seems that a 'satisfactory' grade on a CRA examination is easily attained through mortgage lending and other 'mainstream CRA activities' such as those more traditionally associated with CRA and CRA credit. There seems to be little pressure to perform well and especially to be 'innovative' in Worcester. Institutions that receive a CRA grade of 'satisfactory' can still operate just as they would if they received an 'outstanding' grade. Regulators do not consider brownfields redevelopment as a priority relative to other community development lending test credit-generating activities. Regulation is weak or focused elsewhere.

The second hypothesis is that brownfield projects are too complex and risky. Brownfield clean up and rehabilitation is hard to fund because these projects are difficult for lenders to evaluate its value, they are subject to massive liability to the developer, and have no definite clean up cost. Even with the insurance, which will cover the extra cost of clean up if it exceeds what was originally estimated, many

lenders and developers shy away from brownfields. There are too many uncertainties as to what will be found once clean up has begun, and if the insurance is bought the cost of the insurance exceeds the budget of the developer.

The third hypothesis is that suitable brownfield project proposals don't exist. Lenders evaluated brownfield redevelopment in Worcester as not being viable. I.e., brownfields lending is uncontrollably not rejected, but the redevelopers of Worcester have not been able to put together legitimate projects. Banks claim they are not seeing any viable proposals for brownfield redevelopment projects.

The fourth hypothesis is there is a lack of community pressure. Banks focus on working with the community by directing their efforts to affordable housing and the economics of the community development. Banks receive very little pressure from regulators and community groups to redevelop brownfields. CRA-regulators and community groups should pressure banks to do brownfields lending in Worcester. However, community groups do not pressure the banks to lend. There is also a lack of political pressure. The local banks have picked up on highly recognizable city and government officials' lack of interest in brownfields redevelopment and directed their efforts elsewhere.

Data collection prompted one very important question: Does your institution lend to brownfields projects? Out of eight banks, two have not lent to brownfields for two reasons. One bank claimed that they had not seen a loan application for a brownfield. And, another bank stated that the applications their bank had seen by the borrowers did not have all the information needed and the applications were then withdrawn. If a developer approached a bank with a viable project and had experience on the aspect of brownfields or had someone on his/her staff with experience, he/she would have mitigated the risk on the bank side. A viable project that makes economic sense, mitigates risk, and makes the lender confident to lend.

Three other banks have lent to brownfields but only after the contamination was cleaned up. The lenders did not fund the cost of the cleanup the owner did. Lenders expressed the need for proposals from developers or staff member that had prior experience with that type of project. The need for safe and sound loans also come into play and is a very important factor to lenders lending to brownfields. Lenders are willing to lend if they see an economically viable project, the risk is mitigated, and the borrower will be able to repay the loan.

Three banks had or are currently lending to brownfields projects. These projects had some contamination, but the plan was economically sound and the cost of the contamination cleanup was precisely outlined. The contamination for the most part was fairly contained and in some cases the banks made sure to hire their own Licensed Site Professional (LSP) to estimate the final cost of the cleanup. The lenders saw a viable project where the bank was going to be repaid for the loan. If the project doesn't have a dependable source of repayment of the loan, then the banks will not lend the money.

Another factor that limits the amount of lending to brownfields is that all of the banks are limited to the amount of money they can legally lend. A bank is mandated to have a legal lending limit that cannot be exceeded. The legal lending limit in most cases is twenty percent of the bank's tier one capital. The bank is not committed to lend the legal lending limit to one borrower. In a diverse portfolio when external or internal factors exist, most banks recommend an in-house limit i.e. a limit below the maximum allowed by law. The banks feel that this is beneficial in insuring the repayment of that loan. Depending on the size of the bank and the institution's capital base, many institutions are limited to the types of projects they can legally lend. Many brownfields projects are perceived to exceed the legal lending limit and in-house limit of many small banks. This makes lending to brownfields cleanup projects difficult.

Out of eight banks, six had lent to brownfields projects, and two had received CRA credit. These banks received credit for those brownfield projects because the

parcels were in CRA area. The CRA regulators look at projects that benefit low- to moderate- income communities and people. All lenders agreed that the CRA and brownfields do not have a direct connection; but, if the project employed low- to moderate- income individuals or if the project benefited a low- to moderate-income area, the project could then qualify the bank for CRA credit. It would be considered for CRA community development lending credit.

Most lenders correctly think that brownfield projects are too complex and risky. Nevertheless, this is not a sufficient reason for them to shy away from a good loan. Many lenders stated that if the proper tools were taken into account in the proposal they might lend. A tool that makes the project less complex is an itemized balance sheet that includes the exact cost of the cleanup. Another tool that puts the lenders at ease and would make the project less risky, especially during their safeness and soundness inspections, are various forms of insurance. Three specific types of insurance recommended by a lender were Cleanup Cost Cap/Stop Loss Insurance, Property Transfer Insurance, and Secured Lender Liability. The borrower, to fix the price of the cleanup, can purchase these types of insurance. These types of insurance would mitigate risk of the loan by fixing the price of cleanup. The same bank that recommended the usage of insurance said when using the proper tools lenders do not turn away loans if someone were to say that the project was a brownfield. If the project seems to be well planned and organized including the above tools then the lender would be more than willing to lend. Although most lenders agree with the usage of insurance products, one lender is not at the comfort level that it would like to be at with the insurance companies.

Details of the insurance types recommended by a lender: The Property Transfer Insurance protects the borrower against any unknown contaminants found on the property that would otherwise be costly to determine. The Cleanup Cap/Stop Loss Insurance protects the borrower against cleanup of contaminants that run significantly over budget. These two types of insurance are provided by the Environmental

Protection Agency (EPA) and can be purchased at the Commonwealth of Massachusetts. If the loan went into default, Secured Lender Liability names the bank as the beneficiary, which allows the bank to manage any internal affairs. The Department of Environmental Protection (DEP) provides this insurance.

Our third hypothesis stated that there were no suitable proposals; however, there were suitable proposals, and that explains why three banks have lent to brownfields. Developers do present suitable brownfields' proposals to some banks. Lenders feel that there is lack of knowledge about brownfields. That is why there is a need for more suitable proposals with viable brownfield plans from developers. If lenders were approached with well-thought-out proposals, had good market plans, and a financially stable borrower, they would be more than willing to lend. Lenders would like to see the borrower put in some of his/her own money into the project. Lenders do not like to lend one hundred percent of the project cost. They believe that the borrower should cover twenty-five percent of the total cost. If the loan were to default, it would be easier for the bank to use the collateral of the loan to sell the parcel for three hundred thousand instead of four hundred thousand dollars.

Our last hypothesis was that there is a lack of community interest and political will. Banks would feel that they had to target their community's interest, if the community showed an interest to the redevelopment of brownfields. The banks want to give back to the community where they take loans. If the community shows an interest, then banks are willing to take an initiative. However, the community's initiative is important to spark interest in banks. Lenders have not really seen much interest from politicians, who play an important role when dealing with brownfields.

### **Lenders' Recommendations**

The data collected allowed us to conclude some very important recommendations that may be taken into consideration. First, there must be a

requirement by the CRA to lend to brownfields in a community that is low- to moderate-income. Four lenders mentioned this recommendation unenthusiastically. When it is part of an effort to revitalize a low- and moderate- income community and it is where a brownfield site is located, lenders should then link brownfields and CRA credit together. Moreover, loans made that help finance the environmental cleanup or redevelopment of an industrial site should be consider as community development credits. The second recommendation lenders expressed was that developers or borrowers should have suitable proposals and a viable project with a person on staff that had prior experience with that type of project.

The third recommendation is that brownfield projects complexity and riskiness should be minimized. The need for safe and sound loans is very important to lenders when being evaluated by the safety and soundness regulators. A person looking to borrow for a brownfields project needs to approach the bank with a well-prepared and organized proposal. If possible, the proposal should include an itemized balance sheet. The balance sheet should include the borrower's collateral, a market plan, good location, and have the contamination either cleaned up or a definite cost for cleanup. Also insurance policies can be purchased that mitigate the risk for the bank. In addition, it is recommended that with the assistance of government and community groups, lenders may see the importance of brownfield redevelopment investment and begin to focus more attention to that area.

### **Developers' Data Analysis**

The developer, in brief, may be the person who has an idea for a project and access to capital. The developer identifies a use for the building and land and then with the help of others accomplishes the project. A developer may also purchase a land or building and then seek a buyer immediately who would then determine a purpose for the parcel. The support that the developer receives may come from environmental



insurance brokers, attorneys (environmental and others), licensed site professionals, land appraisers, and accountants.

The developer questions fall into two main sections: questions related to brownfield redevelopment and questions related to financing. The intention of the first set of questions was to determine the developer's level of understanding of several key aspects: the development process generally, brownfield development in particular, and the role of obstacles such as contamination in the redevelopment process. The intention of the second set of questions was to determine the types, kinds, and sources of funding for the typical areas of development that a developer engages in. As part of the financing section, we were particularly interested in the developer's level of awareness of the CRA and its use in fostering private reinvestment of brownfield sites.

The term developer is used as a descriptive term and is therefore used in its broadest sense. As more than one developer told us: You don't go to school to be a developer and that it is largely an unlicensed profession. Also, the term is used to include those whose expertise a developer has to rely on such as the licensed site professional, etc. We interviewed a total of ten developers.

The developers were chosen so as to cover a range of experience levels. The level ranged from the prominent private developers who work only on residential properties to the executive of industrial development corporation and executive of industrial development banks. We also solicited the input of the local community development corporations and their executive directors. In many cases they have either worked directly on brownfield projects and/or have first hand knowledge of how lenders earn CRA credit. It is the role of the CDC to redevelop in low to moderate-income service areas. It is this type of service area where a bank can earn CRA credit for some lending activities. Also, it is in many of the CDC service areas where the underutilized or contaminated lands may be found. We also spoke to others familiar with the development of brownfield projects statewide and to those whose expertise supports site assessment and environmental cleanup.

The questions were then clustered around common themes and the responses were analyzed in that context. Generally, the themes may be grouped as those related to the redevelopment process generally, contamination, private reinvestment, the CRA, and use of the CRA for private brownfield redevelopment.

#### The development process

Throughout our conversations with developers it became apparent that there is a common redevelopment process developers undertake. Also, we found that this process is similar for both brownfield and non-brownfield projects. The only difference is in how the risk factor of contamination is mitigated. As outlined earlier, the process has several steps and usually starts with a location and ends in a build out. Our discussion here will be confined to the development process as it applies to brownfield development. All ten developers stated the same basic steps with the exception of the possible order and timing of FDIC bank financing.

First, a location is considered. Location is governed by values that are industry specific. In the case of the restaurateur, access to the I290 exit was desirable. Also, desirable was a busy well-established street that had other restaurants and plenty of on street parking. In the case of a doctor's office it might be preferable to locate near a hospital. In the case of a manufacturer it may be important to have rail way and cargo shipping container access as well as access to several major highways. In the case of the larger developers the importance of I 290, 496, and the Massachusetts Turnpike access was stressed.

Second, the developer finds out what levels of contamination are underground. As part of this process the developer will use a licensed site professional and an environmental assessment company. It is the job of the environmental assessment company to be aware of current state DEP and federal environmental law regarding cleanup. This type of company also has specific expertise in the physical removal and remediation of a property. In addition to the below ground contamination a developer will typically try to quantify the above ground contamination. The above ground

contamination issues are often times associated with the building. Asbestos and lead are examples of this type of above ground contamination. All of the developers were concerned with this part of the process.

The third part of the process is to determine the use of the property in the context of where contamination is thought to exist. The build out is a necessary function of contamination since, depending on the acceptable uses of a property, it may be possible to cap off parts of a parcel while other parts are built on. This is a function of where the land is most contaminated. This part of the process is specific to the developer's purpose. These purposes ranged from housing of various scale to the large-scale industrial project.

The fourth step is to determine ways to estimate project costs. As part of this process the developer or his agents would investigate the universe of tax credits that may exist for a project. These tax credits may exist at the state or federal level. They may also exist at the local level, either originated at the municipal level or administered by the city. We found out in the course of our discussions that the city through its grant writing office can apply for federal grant monies that may be used for brownfield remediation and related activities. During the course of our discussions with developers most made reference to Mass Development. Mass Development is in essence the states industrial bank and administers grants and loans for site assessment. The role of this agency is quasi public private and was known by several of the FDIC banks we spoke with. In fact, many FDIC banks will not undertake lending to a brownfield project unless Mass Development and the programs that it administers are specifically involved in a project. The level of the project in which Mass Development can be involved ranges in size and scope and is not limited to only the largest industrial projects. They offer technical assistance to developers of all sizes who deal with abandoned buildings, brownfield, and other developmental issues.

The fifth step in the development process is to negotiate the purchase and sales agreement. This is usually done in the context of determining how the liability of contamination will be dealt with between the buyer and seller. It is possible to negotiate this into the price. At this stage of the process it is common for a real estate and or environmental lawyer to be involved. Issues that arise have to do with liability for all aspects of remediation. Associated with this step is the acquisition of environmental insurance. This type of insurance is useful in addressing issues of cost overruns and lawsuits that may emerge over cleanup.

The last step in the development process is to arrange for financing to purchase the site as well as for cleanup. It should be noted that the developers we spoke with used FDIC bank financing at different stages of the process. In some case, a developer was a long time client of an FDIC bank and used the commercial loan officer as a consultant. In some cases the FDIC bank knew that his client was looking for land, but they were looking for a specific location. In some cases a developer went to the bank to secure only a mortgage, and did so near the end of the process. The generalized brownfield redevelopment process is to identify a parcel, cleanup the land, and then build.

#### Contamination

Generally developers' attitudes on contamination were that contamination, as a redevelopment issue, was not a serious concern if the levels of contamination could be quantified. All ten developers were not deterred by contamination if the project otherwise had merit. All ten developers told us that they study the parcel of interest first. The studies that they referred to were phase I and phase II. A phase I study is an historical study of the property uses, its zoning changes, and notices of any known releases of contamination. A phase II study is a study in which surface soil and groundwater samples may be taken and then analyzed. Under phase II borings into the ground may be done. The purpose of the borings is to determine what level of contamination is in the ground.

These types of studies are useful in trying to estimate the nature of the cleanup as well as the cost of cleanup. The consensus among developers was that while the phase studies are useful, since they provide estimates, the actual cost of remediation could be doubled. The anecdotal stories related to us by developers suggest that the phase II study is not exhaustive. A problem with a phase II is that it only studies specific locations of a property and is used as the basis for drawing conclusions as to the level of contamination on the rest of the parcel. In actuality, the full view of contamination is only evident when a foundation or other large-scale excavation is done and other types of contamination are found. Still, most of the developers found the phase studies to be necessary and important, since it provided some level of the cost associated with cleanup. As a note on testing, in some cases the prospective buyer and owner split the cost of testing, while in other cases one party or the other paid for testing and the cost was negotiated into the sale price.

However, for large industrial sites, which contain abandoned buildings and or are known to contain contamination, the expertise of a large developer was a factor primarily for their ability to generate capital. For projects of this size cost of remediation, the ability to generate private capital, and the ability to navigate the process of grants, loans, and regulation seems to be something that only the larger and more skilled developers are capable of.

#### Private redevelopment

All of the developers we spoke with had a clear focus of why they were in business and what they are trying to accomplish. Depending on the agency or company these missions were different. For the small developer, the purpose may be to buy and rehabilitate residential housing in one part of the city. For the executive director of a CDC the mission was similar but includes other activities besides rehabbing existing buildings in their service areas. For the large developer, the mission is to rehab former commercial/ industrial building where possible and to remediate land where necessary. For the official of a quasi-public agency the mission is to provide technical and financial

assistance and to understand the development process from the developer's perspective and with the developer's interests in mind. These developers have extensive knowledge of all aspects of development process, especially related to the commercial/industrial projects where contamination is an issue. This type of developer is able to offer technical assistance for how to structure a deal and financial assistance on the universe of loan and grant programs that exist both at the state and federal level.

#### Awareness of the CRA

Not all developers have the same level of awareness of the CRA. Seven of ten developers heard of the CRA. But, none of these developers were aware of whether a bank had received CRA credit for a project that that developer was a part of. In all cases the developer's motivation was to undertake a project because the project had merits and was in the purview of the developer's mission. The developers did not report that they undertake a project specifically because it may generate CRA credit for a bank. Anecdotally, the impression that we got from interviewing the range of developers was that they had the community's interest in mind as well as their own enlightened self-interest.

#### Use of the CRA for private redevelopment of brownfields

According to the seven developers who heard of the CRA there seemed to be no clear or direct link for how the CRA could be of direct use specifically to a developer and how the CRA would induce them to any greater levels of private redevelopment of brownfields than they were already engaged in. The developers who were aware of the CRA were also aware that it was founded as a remedy to address prejudicial mortgage lending to low- to moderate- income individuals who were otherwise credit worthy but were denied credit because of race or gender.

### **Developers' Recommendations**

In this section we discuss recommendations that are developer specific. The developer specific recommendations were generated in response to the question to the

developer on how they thought private redevelopment of brownfields could be improved. These recommendations are related to increasing private redevelopment of both brownfields and non-brownfields in Worcester. Based on our conversations with developers specific recommendations emerged on how the brownfield/underutilized development process could be improved. The developer seems to be the agent that takes the greatest risk in the process of redeveloping brownfield sites, because as owners of the land they have the greatest exposure to liability to do historical contamination of their properties. As mentioned the developer is likely to rely on the technical expertise and financial assistance provided by Mass Development. Mass Development was referenced a number of times during our conversations with developers. The role of Mass Development is to offer technical and financial assistance to the developer of all abilities irrespective of whether the property is contaminated or not. However, Mass Development has special expertise in brownfield redevelopment. A first recommendation is to increase the budget for Mass Development.

Other developer recommendations include the reinstatement of or greater publicity for an advisory development cabinet whose purpose would be to review, comment on, offer remedy, and provide a permitting blue print to a developer and his or her plans. Related to this recommendation is to increase the level of intradepartmental cooperation from department head to staff and from department to department so that a permitting blue print could be followed as designed. Also, related to the above two recommendations is to supply the committed developer with a specialist. This specialist would act as a liaison to the developer and do much of the 'leg work' related to the permitting process as well as keeping the developer informed on issues related to the project. These recommendations were offered by developers as a way to reduce time to market of business that would like to locate to or expand in Worcester. The perception of the developer in this context was that a developer who had a willingness to engage in redevelopment process might be dissuaded by delays, lack of coordination, and a lack of information.

Another developer recommendation would be to institute or better publicize a land registry of available buildings that fall under tax title, or are otherwise available for sale. As part of this registry the building's condition, square footage, tax status, contamination status, demographic information of buildings/ parcels area and, estimated costs related to build out or remediation should be listed. In addition the land registry should be linked to the available financial and technical resources available to the developer, insurance brokers who specialize in environmental matters, and all other necessary professionals who are part of the brown field redevelopment process. These recommendations were made in response to the developers' perception of a lack of readily available information. In practice this information or links to it should be included on the city's website.

Other developer recommendations include: a reduced commercial property tax rate and a more flexible and proactive zoning policy. These two recommendations seem to go hand in hand. Often times all things are not equal except for the commercial tax rate of a property. But, if all other factors were equal and the choices were between municipalities that had commercial tax rates of \$13.62, \$16.11, or \$29.56 on a thousand respectively and were situated to the west of Worcester, had the same level of transportation, education, demographics, and infrastructure versus Worcester's \$36.29 on a thousand. Then, based on a market analysis, many businesses would be likely to choose those areas within Corridor Nine and points west. The issue of a proactive zoning appeared among the developers. Anecdotally, perceptions that a reactive and slow zoning and appeals process, which leads to increased time to market for some businesses thinking of locating to or expanding in Worcester, was a barrier.

Another developer specific recommendation is to change the perception of the city's willingness to engage in development of all kinds and especially the industrial, commercial, and mixed-use types. One developer related that if the attitude from the top down was, for example, of the type developed in Providence and was to make that



city known for its restaurants and culture and then enacted so that the results were unambiguous then that would be the best marketing tool of all.

Other developer recommendations include: creation of grant loans for lead and asbestos removal; greater unity between federal and state environmental brownfield regulation; reduced complexity in brownfield and related law, reporting requirements for a lenders' brownfield and related activity and an accompanying tax credit for such lending activity. The first recommendation of this group is generated from the developers' experience with lack of assistance for aspects of redevelopment or rehab of a property which are types of contamination, expensive to remove, but not covered under brownfields or related legislation. The second recommendation of this group is related to simplifying the brownfield laws that exist between the state and federal levels. Coordination and simplification of the brownfield and remediation process are intended. The last two recommendations for this section are meant as an incentive to the lender, so that they would possibly loan more specifically to the remediation aspects of a brownfield project. This recommendation would indirectly provide a greater incentive for the generation of CRA credit for the remediation aspect of a brownfield project not just the build out after the land was cleaned.

### **City and Government Officials' Data Analysis**

Worcester Massachusetts is in need of economic, industrial, and residential improvement. Various stakeholders can promote the rise of the economy. This section will analyze the opinions of government officials. Quite possibly government officials are the most important stakeholder group to bring together lenders and developers. Government officials interviewed included those whose job is a part of the planning process in general. These officials included three city councilors, one state representative, and one executive of economic development. Without legislative backing, no improvements can be made to the city. The other functions of government officials include the planning function, which may include the creation of plans for

neighborhoods, the representation of the city to outside businesses, and providing capital in the form of tax revenue for the implementation of the city's plans, many which may center on development issues. The goal of these interviews was to gain a background of what city officials thought about the CRA, what strategies the officials used in order to redevelop the city, what steps are being taken to redevelop brownfield sites, and what connection government officials saw between CRA and private reinvestment of brownfields.

The first question asked was: What is the biggest economic development problem Worcester faces? Each of the government officials answered similarly. The largest obstacle in development growth is not having land ready to expand onto. Much of the land that can be developed must also be decontaminated. The key to redevelopment is having ready land to sell. One government official made a point on the expansion of business down RT. 495, and how Worcester could not benefit as much as other cities and towns because land was not readily available; and if it was, a major effort in decontamination was required. Another official commented on, "time to market." The notion of "time to market" seems to be important because the faster a parcel can be redeveloped the quicker it can contribute to the tax base. Each of the officials is concerned about the expansion and upgrading of Worcester, and they have pinpointed an area, Main South, that should be repaired in order to better the city and attract businesses to the area.

The next question focused on understanding the level of government officials' knowledge of the CRA. Unlike the first question, the answers to this question were very dissimilar. Of the five interviewees, two were unaware of what the CRA was, and three were aware in some aspect of how the CRA could benefit Worcester. Of the three interviewees that had knowledge of the CRA, one interviewee knew exactly how the CRA could benefit Worcester, and overall how the CRA worked, but was not aware of CRA projects in Worcester. The other two interviewees had basic knowledge of the CRA and were interested in learning more in order to help the city remediation. Although 40% of

the interviewees did not have extensive knowledge of the CRA, they did have knowledge of remediation efforts in Worcester, and the importance of a remediation effort in the city. These answers show that the government officials are interested in learning about the CRA, have a positive outlook on the intention of the CRA, and advocate the remediation of contaminated parcels in Worcester. With education and understanding of the possibilities of a CRA, the city officials could promote the act and give incentive to contaminated property owners to sell, and outside business to invest. If a small amount of CRA background information was provided to key figures, besides the mayor, much more might get done, and many more key figures could be involved and working on the same page.

Another question was: What is the percentage of underutilized or brownfield sites in Worcester? Each of the government officials were aware that Worcester has many areas that are underutilized. One official noted that the city has a very sophisticated GIS, plus good census reports that show that areas, especially in South Worcester, are having utilization problems. Another official pointed out that commercial underutilization was very common in Worcester, but not as much in residential. This official also mentioned the sophisticated GIS. One official was unaware of the actual percentage of underutilization, but knew that there was a good amount in the city. All officials identified underutilization as a major problem that is holding the city of Worcester back economically and measures must be taken to improve this. However, government officials did not have the exact number of brownfield sites in Worcester and spoke generally about the problem.

We asked what the city's status was in terms of a big picture agenda and a plan for development. This was very important to each official. One official noted that the city's status is way behind, no master plan exists, and a major plan and picture of downtown must be formulated. Another official noted that there is no plan of action at this time. Similarly, another noted that a large problem with Worcester is that a long-range plan with short-term goals has not been established. Two officials commented

that they have not had a chance to meet with the new city planner, and this step is important to improve efforts of remediation.

Another important question asked was if the official were aware of any brownfield sites that have been redeveloped in the city of Worcester. One of the government officials did not exactly know the definition of what a Brownfield site. Two of the officials were aware of Brownfield projects that had successfully been completed in the city of Worcester. And the last government official mentioned that everyone has to have a list of the success projects that happened in Worcester. Key points that most people have to know when dealing with re-development are where these projects are, how can the projects gain resources to fund them, and who else has completed projects similar to these. These three things would play a large role in bringing businesses to the city of Worcester.

We were also interested in finding constituents concerns regarding private investment of underutilized spaces in mixed-use neighborhoods, especially with traffic. Each answered that the constituents may have problems with redevelopment, but overall it would be doing good for the community: for example, redeveloping could lower crime and drugs in neighborhoods that are run-down and damaged by upgrading and community involvement. Another official noted that we are either building neighborhoods or destroying neighborhoods. "If it's building neighborhoods we'll break down barriers, which also may be perceived as destroying neighborhoods...there are active neighborhood groups in every neighborhood that stay informed and stay in contact." Constituents in some cases can bog down a project and change the minds of officials. Each interviewee said that some groups do not realize that this development is sometimes beneficial not harmful.

Regarding a master development plan for the city of Worcester, all five government officials answered that the master development plan is a good idea. One of the officials answered that if two of the major players in the city of Worcester were to come together to redevelop an underutilized space, it would help to redevelop faster.

Another official noted that the city should adopt a strategic plan every five years, and at the same time have a flexible and fluid master plan adapt to the changes that constantly occur.

### **City and Government Officials' Recommendations**

Overall, each government official gave recommendations how the city of Worcester should improve the process of private reinvestment and reuse of underutilized or brownfield spaces. One recommendation was to clean up smaller parcels quicker to encourage other owners, and market the idea to potential investors or developers outside of Worcester. A second recommendation is that a time limit should be given in order to decontaminate a site. This would encourage owners of contaminated property to clean and sell on a timelier basis. Thirdly, it was recommended owners could receive tax credits or incentives. The city and/or state, needs to do this to upgrade Worcester, because a tax incentive gives the owner a reason to decontaminate land. It was also recommended that, sometimes it is better to leave a building abandoned than to sell it to a developer who does not have the community's best interest at heart. Such a developer may create a use of the building, which further adds to the deterioration of a neighborhood. A fifth recommendation is that Worcester needs a strong marketing plan, that is focused and coordinated with state and federal programs and incentives for brownfield cleanup and redevelopment. Infrastructure and development is necessary for almost "every" project. Worcester currently has a remarkable infrastructure that can be marketed to new companies looking to invest in Worcester. Finally, land assembly is very useful to the development of Worcester. Marketing a package of land to a company to bid on or invest in can help to speed up the revitalization of Worcester.

### **Data Analysis Conclusion**

Significant development opportunities seem to exist at present in the City of Worcester despite the issue of contamination, according to Mass Development and others with significant development knowledge. These opportunities are related to what

many consider to be Worcester's assets: an educated workforce generated through the area's schools; significant infrastructure such as access to the Mass Pike, routes I-190, 290, and 496; the railways (both cargo and commuter); and a small regional airport. Other assets include infrastructure such as roadway, power, and sewage. Also, the quality of buildings available, which can be divided into lots of various sizes: from 2500 or 10000 sq feet and greater are pointed to as an asset. Many also consider Worcester's neighborhoods and many of its cultural amenities as well as Worcester's proximity to other cities in the region assets. Many of Worcester's development opportunities become apparent when a market analysis of land prices for similar properties is conducted for locations of I-495 east toward Boston and I-495 West toward Worcester. According to the lenders and developers interviewed, land prices, even considering the cost of cleanup, may often times be less expensive in Worcester than the I-495 to Boston zone.

Opinions vary among lenders, developers, and government officials about the quality of the financial and technical expertise that surrounds redevelopment of brownfields and underutilized spaces. These opinions may shape the redevelopment process, even though they are less easily quantified, they are no less important than the statutes and laws that govern redevelopment. Attitudes about brownfield development along with specific expertise, cooperation, and development strategies can reduce the barriers that stand in the way of generating pad ready sites in Worcester. These opinions may be linked to perceptions related to the difficulty of a brownfields project versus a non-brownfield property.

## **Conclusion**

During the course of this project we had the opportunity to research and report on an important real world issue: a role for the CRA for the private reinvestment of brownfield sites in Worcester. This opportunity originated as a project statement from our primary project sponsor: the Mayor's Office of the City of Worcester. This research focused on the development process. We especially focused on the components: brownfield redevelopment, the CRA, and private reinvestment of brownfields in Worcester. Through our research we achieved the goal of understanding the redevelopment process through the perspectives of the lender, developer, and government official. We also achieved the goal of understanding each group's level of awareness and attitude about the CRA as a tool for brownfield reinvestment.

This research was exploratory and novel. Our initial background and literature review revealed little published material that explored possible links among brownfields redevelopment, CRA, and private investment of brownfields. We hope that this research may aid in further study of this contemporary urban issue. The main purpose of this project was to make research based policy recommendations to the three groups as well as the Mayor's Office of the City of Worcester. We hope that these recommendations will lead to innovative and creative connections between lending activities worthy of CRA credit and private investment of brownfields in Worcester.

In the earlier sections of this report we bounded the problem. It is useful to understand the present situation through its roots in the past. This level of understanding provided context for the recommendations. In the background and literature review section we surveyed the social science models of industrial growth and placed Worcester in the context of industrialization. We also investigated Worcester in the context of de-industrialization. After establishing the historical context for the forces that led to brownfields and contaminated lands we researched the CRA. The CRA also needs to be placed in context. It was originally conceived to redress the systematic denial of credit to those who were otherwise credit worthy. The largest area

in which CRA credit is earned is for home mortgage lending to low to moderate-income individuals in CRA assessment areas. This is the case at present. One aspect of the CRA: its community development aspect makes it theoretically possible for a bank to receive CRA credit if they lend to a brownfield project in which the low to moderate-income area benefits. Through our interviews we found that in practice and at present CRA credit is earned most often for lending activity related to home mortgage and small business. The good news, though, is that the stakeholders through creative and innovative ways may be able to leverage the community development aspect of the CRA for the private reinvestment of brownfield sites. Such connections remain to be made and will have to be a function of those with the greatest interest taking such action as would link CRA and brownfields. A realistic and baseline sense of present sentiment on the issue as presented through this research ought to be of use to policy makers and stakeholders.

Without the stakeholders neither brownfields can be cleaned nor can the CRA be of any use in fostering private reinvestment of brownfield sites. In the methodology section of our research we detailed how we tapped into the cumulative knowledge of several prominent lenders, developers, and government officials. Based upon many resources and personal contacts we generated a list of people with expertise in each area who we wished to interview. The range of opinion was drawn from state representatives to senior loan officers to major developers. Also, we generated a list of appropriate and thought provoking questions for each group, and then we conducted interviews. After the interviews we assembled the data, analyzing it for themes that emerged in the aggregate.

Several themes emerged within the lender group. When asked if they lent for brownfield projects six out of eight banks reported to have lent to brownfield projects. One lender stated that it had not seen a proposal for a brownfield project. And, another stated that the proposals received were withdrawn for various reasons. Three banks have lent to brownfield projects, which had some contamination. On the whole lenders



were willing to lend to these projects because they were economically sound and the cost of the contamination cleanup was precisely outlined. Three other banks said they lent to brownfields only after the contamination was cleaned up; they did not fund the cost of cleanup. They waited for the land to be cleaned up because the deal was too risky and they didn't want to make the bank liable.

We also found that banks are limited in the amount that they can loan to any one project. This factor limits the amount of brownfield lending that a bank is capable of since banks are limited to the amount of money they can legally lend to one borrower. Usually the bank has an in-house limit, which is lower than the legal lending limit. The lending limits are not arbitrary and are governed by both state and federal banking law. Out of six banks, which have lent to brownfields, two had received CRA credit related to the project. Although, brownfields projects are risky and complex this is not a reason for lenders to shy away from brownfields projects. Lenders will lend if they see a project that is economically viable, the risk is mitigated, the loan is within lending limits, and the borrower will be expected to be able to repay the loan. One bank mentioned that insurance products would help to mitigate the risk for lenders. These insurance products include Property Transfer Insurance, Cleanup Cap/Stop Loss Insurance, and Secured Lender Liability. Lenders also stated that they currently do not see as much political or community interest for brownfield redevelopment as for other lending activities, especially home mortgages.

Also, several themes emerged within the developer group. Ten of ten developers interviewed considered the underutilized parcels or brownfield as an opportunity. All considered contamination to be a factor in the development process. They felt that if this factor could be quantified then its risk could be mitigated. The developers stated that if the project was a brownfield then they weigh the development opportunity with its related risk of contamination against market forces that favor development. If the rewards of a development opportunity were greater than the risks, the developer was likely to go forth on a project. But, the

developer was only likely to go forward on a project if the risk could be mitigated and the demographic and administrative factors of a municipality were favorable to the business opportunity. Developers, on the whole, felt that several major factors could be in better alignment for the redevelopment of brownfields in Worcester: the location of the property; the commercial tax rate of the municipality; coordination of the development process at all levels of government; ease of the permitting process; incentives that the city or state could provide; and the quality of infrastructure. Other themes that emerged were: the need to reduce time to market; quicker assembly of land; increased value of the land; and gap funding to manage development costs until assessments could justify market rates. The developers also reported that much technical expertise and financial support came from Mass Development and most of their FDIC bank financing was in the form of commercial loans, primarily for build out. The developer group reported that it favors incentives that would lead to increased lending to brownfields. They welcome any role that the CRA might play. However, they are not aware of any mandate that exists for a bank to lend to a specific activity and to lend if the project does not have merits that would otherwise justify the loan.

Finally, several themes emerged for the government official group. Government officials can help bring together lenders and developers for the purpose of brownfield redevelopment. Government officials were asked if they were aware of the CRA. Out of five government officials, only three were fully aware of what the CRA was and its role for possible brownfield redevelopment. All of them were interested in learning more about the CRA. Government officials were not aware of any brownfields projects in Worcester that had received CRA credit. Also, government officials were asked their opinion about a master plan for Worcester. The government officials stated that no master plan currently exists in the city of Worcester. They felt that a master plan would be very beneficial to Worcester. They also suggested that if

lenders and developers came together working with the city to redevelop a specific brownfield space it would help speed up redevelopment of other parcels in Worcester. The feeling is that such a collaboration could serve as a model for brownfield redevelopment.

The themes that emerged served as a base for recommendations on the brownfields redevelopment process from the perspective of each group. The recommendations focus on how the brownfield redevelopment process may be improved. These recommendations are not restricted to the particular group that offered them. These recommendations are directed to the other groups as well as the Mayor's office.

Several recommendations were developed from the lender group. The first recommendation was that there be a requirement by the CRA to lend to brownfields when it is part of an effort to revitalize a low- and moderate- income community. Four lenders mentioned this recommendation unenthusiastically, though. Moreover, loans made that help finance the environmental cleanup or redevelopment of an industrial site should be considered for community development credit. The second recommendation lenders expressed was that developers or borrowers should have suitable proposals and a viable project with a person on staff that had prior experience with that type of project. The third recommendation was that brownfield projects' complexity and riskiness should be minimized. When being evaluated by regulators the need for safe and sound loans was very important to lenders. A person looking to borrow for a brownfields project needs to approach the bank with a well-prepared and organized proposal. If possible, the proposal should include an itemized balance sheet. The balance sheet should include the borrower's collateral, a market plan, good location, and have the contamination either cleaned up or a definite cost for cleanup. Also, insurance products can be purchased that mitigate the risk to the bank. In addition, it is recommended that with the assistance of government and community

groups, lenders may see the importance of brownfield redevelopment and begin to focus more attention to that area.

Based on our conversation with developers, specific recommendations emerged on how the brownfield/underutilized development process could be improved. As mentioned the developer is likely to rely on the technical expertise and financial assistance provided by Mass Development. A first recommendation is to increase the budget for Mass Development. Other recommendations include the reinstatement of or greater publicity for an advisory development cabinet in Worcester whose purpose would be to review, comment on, offer remedy, and provide a permitting blue print to a developer and his or her plans. Relative to this recommendation is increased intradepartmental cooperation from department head to staff so that a permitting blue print could be followed as designed. Also, related to the above two recommendations is to supply the developer with a specialist. This specialist would act as a liaison to the developer and do much of the 'leg work' related to the permitting process as well as keeping the developer informed on issues related to the project. Another recommendation would be to institute or better publicize a land registry of available buildings that fall under tax title, or are otherwise available for sale. As part of this registry the building's condition, square footage, tax status, contamination status, demographic information of buildings/ parcels area and, estimated costs related to remediation should be listed. In addition, the land registry should be linked to the available financial and technical resources available to the developer, insurance brokers who specialize in environmental matters, and all other necessary professionals who are part of the brownfield redevelopment process.

Other recommendations include: reduced commercial property tax rate, a more flexible and proactive zoning policy, better marketing of the area including a concerted print and radio campaign locally, regionally, and nationally. A possible theme might be "Worcester Welcomes You! Invest in Worcester: the Heart of the Commonwealth, the Heart of Massachusetts." As the city does well so the stakeholders would do well by

investing in such a marketing campaign. Other recommendations include: creating grants and loans for lead and asbestos removal; greater unity between federal and state environmental brownfield regulation; reduced complexity in brownfields and related laws; a reporting requirement for banks that lend specifically for brownfields and an accompanying tax credit for such lending activity.

Also, the government official group offered recommendations on how the city of Worcester may improve the process of private reinvestment and reuse of brownfield spaces. One recommendation was to clean up smaller parcels quicker. This would encourage other owners to clean their land. Then this parcel could be marketed to potential investors or developers outside of Worcester as an example of quick and efficient brownfield redevelopment. A second recommendation was that a time limit should be given for decontaminating a site. This would encourage property owners of contaminated land to clean and sell quicker. Thirdly, owners could receive tax credits or incentives for cleaning their land. The city and/or state have the power to do this and need to do this in order to facilitate faster decontamination of land. Although, one government official stated that they felt it is sometimes better to leave a building abandoned than to sell it to a developer who does not have the community's best interest at heart. Fourth, government officials reported that Worcester needs a strong marketing plan coordinated with state and federal programs with incentives for brownfield cleanup and redevelopment. Infrastructure and development is necessary for almost "every" project. Worcester currently has a remarkable infrastructure that can be marketed to new companies looking to invest in Worcester. Finally, land assembly is very useful to the development of Worcester. Marketing a package of land to a company to bid on or invest in can help to speed up the revitalization of Worcester.

Also, and perhaps most importantly, innovative and creative connections between brownfields, CRA, and private reinvestment of brownfields can be conceived and implemented through the Mayor's Office and realized through the city council and the administration. These recommendations include several requests to the

administration for information and where a feasible solution exists the implementation details. Recommendations of this sort include: a request for information regarding the feasibility of using the city's credit rating to back redevelopment bonds specifically for cleanup of city owned brownfields; a request for an update on the effectiveness of the Brownfields Redevelopment Strategy and assessment of that program; and a request which assesses the current tax title system focusing on how it may better dispose of brownfield properties.

Other requests for information include: a request which assesses and reports on the city grant writing office and its ability to win future funds specifically for brownfields; a request which evaluates the current IT system and makes recommendations on how it may be better used relative to brownfields; and a request to provide a method for integrating brownfield success stories in Worcester as part of a more complete city marketing plan which portrays a city on the move. Further requests for information include: a request which seeks recommendations on how the city website can better deliver brownfield related information directly to stakeholders and with ease of access; request which seeks action for an online business survey that solicits business recommendations and thoughts on local brownfield development climate, including CRA; and request for implementation of a web based permitting guidebook complete with contacts, timetables, and details of steps required in the development process.

In addition to requests for information other recommendations to the Mayor's Office include consultations. Recommendations under this category include: consultations with the WBDC for technical knowledge and strategic planning and concerted redevelopment effort for brownfields between the two groups; consultations with Mass Development for the same types of knowledge sharing as WBDC case; and consultations with the Chamber of Commerce for same as above two cases, with expanded marketing component. Other recommendations include: consultations with other Mayors in cities where brownfields have been an issue; consultations with lenders

on creation of CRA related brownfield products; and consultations with developers for improvement of brownfield development process. Further consultations include: consultations with state legislative delegation for purpose of communicating importance of brownfield development in Worcester and formation of legislative agenda for that end; consultations with Governor's Office for same as above; and consultations with federal representation for same as above two cases.

The Mayor's Office can and should use its influence for the creation of brownfield and other related development legislation not only at the state and federal level but at the Council level by creating city ordinances that are favorable to the private reinvestment of brownfields in Worcester. Also, the Mayor's Office can get stakeholders involved through such events as roundtables that focus on related aspects of brownfields development, the CRA, and private reinvestment of brownfields. A notable example is the Mayor's Brownfields Roundtable. This roundtable, over the course of several months, has brought together the stakeholders in the brownfield redevelopment process for discussions of the issue. This roundtable will culminate in a forum held in May. The Mayor's Office, as part of the forum, should craft a series of goals and strategies related to brownfield redevelopment and periodically assess the progress of these steps. Also, further brownfield roundtables or subgroups related and moderated by leaders within the respective groups should be formed as needed to address progress of brownfield redevelopment in Worcester, with their findings reported to the Mayor's Office.

The Mayor's Office has a very powerful tool at its disposal that can bring new knowledge to bear and offer solutions to the city's brownfield redevelopment issues. This resource is the IQP program at WPI. Recommendations related to this category include: sponsorship of an IQP that investigates the success of brownfield redevelopment in other municipalities and models the relevant factors; sponsorship of an IQP that investigates optimal uses of land and buildings based on present factors and focusing on best and most cost effective use of brownfields; sponsorship of an IQP

that investigates technical and related for creation of more effective contamination testing mechanisms. Other IQP specific project recommendations include: sponsorship of an IQP that analyzes the CRA and develops legislation for its better use in brownfield redevelopment; sponsorship of an IQP that develops lending products geared specifically to brownfields; and sponsorship of an IQP that models the brownfield development process with focus on integrating all aspects of process, including resources available and costs. Further IQP specific project recommendations include: sponsorship of an IQP that investigates the land court process as it relates to brownfields; sponsorship of an IQP that investigates current topics in environmental law and its applications to brownfields; and an IQP that investigates more green forms of manufacturing and the attraction of such industry to Worcester.

Innovative connections between CRA, and private brownfield redevelopment are possible. Each stakeholder in the process as well as the public at large can contribute in a positive way to Worcester's continued and sustained growth. Worcester cannot only become the most livable mid size city but a model city for the 21<sup>st</sup> century in which a diverse economy complements the residential aspects of our community. The process of making these connections is at an early stage. The best way to establish these links may be through the building of consensus at all levels where people of good will gather upon the one road toward a prosperous and stable Worcester.



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## Lenders' Interview Questions

This conversation or answers to these questions will be “off the record” in the sense that no answers to the questions contained here will be presented in a way that the speaker will be able to be identified. This means that we will use your responses in the aggregate and that they will not be attributed to you or your firm or agency. Feel free to answer the questions that you think relevant and to which you have sufficient knowledge. These questions are meant as a guide. We thank you for taking the time to help us with our research project.

### Question Series 1: Brownfield Lending

1. Does your institution lend to brownfield projects?  
-If so,
  - a. How many loan applications do you see in a year?
  - b. How many applications are approved?
  - c. How much (number & rough dollar volume) do you lend in a typical year for the approved applications?-If not, why? And In general, how many loan applications do you see in a year? How many applications are approved? How much (number & rough dollar volume) do you lend in a typical year for the approved applications?
2. Are loan applications typically well designed?  
-If yes, what makes them well designed?  
-If no, what makes them not well designed?
3. Are the projects proposed *ever*-well designed/viable?  
- If yes, what are the characteristics that make them well designed/viable?  
-If no, what are the characteristics that don't make them well designed/viable (example: risk, etc.)?
4. Are some developers perceived as capable of doing projects and others not? And are some developers perceived as capable of doing brownfield projects and others not?
5. Does your institution they have specialist(s) in the bank for brownfield redevelopment?  
If so, are they at branch level or higher up?  
If not, why?
6. Is there an official bank policy on brownfield redevelopment investment?  
If so, what is it?  
If not, why?
7. Is brownfield lending perceived as challenging or to be avoided even if no official policy/caution exists?  
If so, why?  
If not, why?
8. Is there any political pressure from local officials to do brownfield redevelopment?  
If yes, how does this compare to pressure you get to do other activities?
9. Is there any pressure from community groups to do brownfield redevelopment?  
If yes, how does this compare to the pressure they get to do other activities?

### Question Series 2: CRA

1. Is there any set CRA bank policy?  
- If yes, who decides what it is? And how is it monitored?  
- If not, why not? And do you think there should be one?
2. How does your bank monitor compliance between exams?
3. What are your institutions's banking priorities? Example mortgage lending verses commercial? And Why?

4. Does your institution focus on community development lending? How strongly? Are there specialist loan officers for these projects? Do they provide incentives?
5. Is brownfield redevelopment on the list of community development lending activities? Are there incentives? Do loan officers avoid brownfield lending because it is time-consuming and hence dilutive of their income (assuming income is commission or volume based, at least in part)?
6. Is brownfield redevelopment something CRA regulators look for? Encourage? Demand?  
-If so, what form does it take – constantly higher standards? Focus on specific test components or compliance channels? Etc.  
-If not, elaborate.
7. In general, do you face much pressure from CRA regulators?  
-If so, what do they pressure you about?
8. Do regulators ever broker deals between your bank and community groups?  
- If so, what are the deals? And are these ever brownfields related?
9. Do regulators understand the challenges your bank faces in doing brownfield redevelopment?
10. Does your bank perceive brownfield redevelopment as a CRA issue at all?  
-If not, what do you perceive as CRA issue?

**Question Series 3: How to Encourage brownfield redevelopment**

1. What would need to happen for your institution to do more brownfield redevelopment investment?
2. Is having the City as a partner a good idea? Bad idea? What can/should the City do to make BFRL viable?
3. Would increased regulatory interest/credit under CRA matter/help at all?
4. Would increased community interest matter/help at all?
5. Would increased political interest matter/help?
6. How can the bank become a partner for brownfield redevelopment investment?
7. What recommendations can you make for better use of the CRA for private brownfield reinvestment?
8. Who do you recommend we speak to?

## Developers' Interview Questions

This conversation will be “off the record” in the sense that no answers to the questions contained here will be presented in a way that the speaker will be able to be identified. This means that we will use your responses in the aggregate and that they will not be attributed to you or your firm or agency. Feel free to answer the questions that you think relevant and to which you have sufficient knowledge. We thank you for taking the time to help us with our research project.

### **I. Brownfield Redevelopment**

What types of development projects does your agency or company typically take on? Does it work on brownfield redevelopment projects? How does the brownfields redevelopment process differ from standard projects and/or standard redevelopment projects? (i.e., what are key differences)

What barriers does a developer encounter when they develop a brownfield site?

Of these obstacles, which are the most important? Why?

Are these obstacles equally important for firms of your type? For example, do they differ for well-funded developers and a more marginal developers?

How does the \_\_\_\_\_ (e.g., WBDC, ACME Redevelopment Corp., etc.) engage in the brownfield redevelopment process? What factors make it different on different projects?

What are some of the specific brownfield redevelopment projects that you have been involved in. As a total percentage of your work, what percent are brownfield? Why?

How do you identify projects? Is level of contamination a key issue?

*If high:* Does your firm have a special expertise in brownfield redevelopment? If so can you elaborate on the steps of the process?

In terms of contamination, were these sites slightly contaminated, moderately contaminated, or heavily contaminated?

Tell me about your involvement in \_\_\_\_\_ (specific project). How did you identify the site? What were the steps you went through to bring this project through to reality? What types of financing support the project?

How is the project viewed by political actors? (Mayor, council, manager)

***In addition to the development process we are interested in learning about financing. We'd now like to turn the discussion toward project financing.***

### **II. Financing**

Where does the money come from for brownfields projects? Is this the same as for regular projects? What are the main differences between putting together financing for a new development and a brownfield development?

Do brownfield projects often fail to attract funding? Has this happened to you? Have many of yours failed to get off the ground because of financing?

Do you believe that the risk averseness of lenders is holding up brownfield redevelopment?

What are your main sources of brownfield redevelopment funding (e.g., banks, government, individuals)? Try to get a percentage.

What are the different pieces of the brownfield-funding puzzle? Do different funding sources emerge at different phases of the project? When do banks begin to fit in? How difficult is it to get money for different phases of a project? Where does the difficulty lie?

Are there certain types of public and private funds such as loans and/or grants (e.g., EPA, DEP, private financing) that are available at certain phases of a project and not at others? From who? Which phase?

Who are the specific government agencies that finance brownfields?

In your experience, what is the specific role of banks in the financing of brownfield redevelopment? If no role, why?

Do banks or lenders find brownfield redevelopment particularly complex?  
Do banks or lenders find brownfield redevelopment particularly challenging?  
Do banks or lenders find brownfield redevelopment particularly risky?  
Do banks or lenders find brownfield redevelopment particularly protracted?

Are these concerns legitimate? Or do you believe banks would rather just not deal with brownfields?

If banks worked harder do you believe they *could* supply financing to more brownfields projects? Is this based on conversations with bankers? Your own opinions? Other?

Are you familiar with the Community Reinvestment Act (CRA)? Are you aware of cases where banks have received CRA credit for their involvement in your brownfields projects? Other brownfield projects?

Are you aware of other projects that used the CRA to develop underutilized or brownfield sites?

Based on your experience what recommendations could you make to improve the development process as it applies to your agency or company?

***That concludes our topical questions. Before we leave can we ask you:***

Who else would you recommend that we speak to? Would you mind if we mentioned that we spoke with you?

## City and Government Officials' Interview Questions

This conversation or answers to these questions will be “off the record” in the sense that no answers to the questions contained here will be presented in a way that the speaker will be able to be identified. This means that we will use your responses in the aggregate and that they will not be attributed to you or your firm or agency. Feel free to answer the questions that you think relevant and to which you have sufficient knowledge. These questions are meant as a guide. We thank you for taking the time to help us with our research project.

Questions.

What are some of the biggest economic development problems faced by Worcester?

How do these problems rank in terms of municipal priorities?

Are you familiar with the Community Reinvestment Act (CRA)?

Are you aware of any local developments that have used or benefited from the CRA? What types of project were these, ex: brownfield or underutilized parcel projects?

Are you aware of examples of private reinvestment that used the CRA, which occurred in other cities, towns, or states?

In addition to the possible use of the CRA what other programs, grants, etc. are you aware of that might be of use in fostering private reinvestment of underutilized spaces?

What percentage of parcels in Worcester are underutilized, brownfield, or suspected brownfield (ratio of particular type to total)?

Have private developers expressed an interest in redeveloping specific buildings or parcels in Worcester? If so what type of project and at what level of commitment?

What is the city's status in terms of a big picture agenda and plan for development, especially of underutilized spaces including brownfield sites?

What level of interest are you aware of on the part of other government officials, lenders, or developers in terms of private investment and redevelopment?

How much does the current financial climate jeopardize private development activity (for underutilized spaces)?

What opportunities do you see in leveraging the Art District movement for private reinvestment of underutilized spaces outside of the Arts District but adjacent to it, or in other areas of the city?

Is there currently legislation pending from the council that would encourage private reinvestment?

Have any known brownfield sites been redeveloped in Worcester? If so, where are they, what was the outcome, how long did it take, and what was the cost?

What are the concerns of constituents regarding private investment of underutilized spaces in mixed-use neighborhoods, especially over concerns of possible increases in traffic or demolition of buildings?

What would be the impact on infrastructure (roadways, sewerage, and municipal services) if a majority of underutilized parcels were to be developed? Would the infrastructure be able to handle amounts of use in the best-case scenario?

Should the Prescott St./Gateway Project serve as a model for planning in other areas of the city such as the proposed Canal District or South Worcester Industrial Park?

Should a master development plan be created for the city of Worcester?

How can technology like the fiber optic backbone be best used for marketing areas where there is potential reinvestment opportunities?

Do you know of any technologies that can reduce the cost of testing and remediation where there is known or contamination?

Who else can you recommend that we talk to (lenders, developer, and government officials) who may be able to help us on this project?

Based on your experience what recommendations could you make to us that might improve the process of private reinvestment and reuse of underutilized or brownfield spaces in Worcester?

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### **Worcester Municipal Research Bureau, Proposal for Promoting Economic Development in Worcester**

This paper analyzes the job marketplace in the city of Worcester, compares and contrasts it to other comparable cities in America. The paper shows the number of jobs located in the city, the number of jobs held by residents, the tax base, assessment of properties, and new construction. The bureau then gives recommendations on what the city should do to form more jobs, boost the economy and support growth of business that will help the city. The paper gives four recommendations, develop comprehensive data describing the local labor market, measure the “true” cost of doing business in Worcester, connect existing workforce development collaborations to a targeted marketing and comprehensive business recruitment initiative, and finally adopt a more regional economic development strategy. A conclusion is then given that explains that Worcester has the opportunity to better its standing economically with the steps explained.

### **Belsky, Eric; Schill, Michael; Yezer, Anthony The Effect of the Community Reinvestment Act on Bank and Thrift Home Purchase Mortgage Lending.**

This working paper was helpful in that it described some of the findings of a study, which looked into CRA's, and if they had positive affects on communities. The paper also looked at estimates of how much credit expansion CRA generates. The paper gave a general introduction to the Community Reinvestment Act that was passed in 1977 and explained what the purpose of CRA's are, where they are used, and why they are used. The paper also gave empirical results of the findings on CRA's and their affect on LMI's (low-and-moderate-income)

**Belsky, Eric S. Lambert, Matthew. Von Hoffman, Alexander. Insights Into the Practice of the Community Reinvestment Act Lending A Synthesis of CRA Discussion Groups.**

This paper gave a brief history of the CRA, what areas of the CRA needed improvement, and where the CRA has developed. The purpose was to discuss the CRA development from the beginning practices to the present. The ideas in the paper give a logical process of the CRA and where it should be applied now.

The main reason for implementing the CRA in 1977 was because financial intuitions were refusing to give loans to certain neighborhoods based on racial composition of the area and the age of housing stock. The CRA statement includes twelve assessment factors in five categories, which are federally enforced each year to these financial institutions. These institutions are obligated to comply in order to get government support.

The discussions included the growth of the CRA and how banks now collect more precise data for loans. This information can now be used toward statistical analysis, which has brought on more controversial issues related to racial discrimination. The continual assessment of the CRA has brought better distribution of funds. The CRA is now being used toward the actual redevelopment of communities and there are delegated people in charge of the distribution of these funds. The discussion concluded with the most recent Gramm-Leach-Bliley Act, which no longer requires annual CRA examination of small financial institutions.

**Interview with Mayor Murray of Worcester MA 11/7/2002**

The interview with the Mayor was very informative and relevant to the purposes of our paper. The mayor is the liaison for our project. Through this interview the mayor answered our questions and provided further rationale for how the Community Reinvestment Act (CRA) might be better used in the redevelopment of brownfield sites in the City of Worcester.

According to the Mayor the CRA could be better utilized if it were part of a larger package of assistance to interested parties. Also, the CRA might be used more fully for the community development aspect if a greater marketing component could be developed.

**Jones-D'Agostino. "Now, It Really Is Worcester's Turn": The WBDC's Dave Forsberg Tells How His Organization Seeks To Help Revitalize Downtown.**

Steven Jones-D'Agostino interviewed David Forsberg in this article. Mr. Forsberg is the president of the Worcester Business Development Corp. (WBDC). The WBDC is a non-profit development corporation, which has expertise in community development issues on a number of levels. This interview is of interest to our project since Mr. Forsberg's company has been involved in the redevelopment of brownfield sites. The WBDC was instrumental in the development of the Gateway Park brownfields area.

The interview covered other projects that the WBDC has been involved and currently involved in. Mr. Forsberg responded to a number of questions, with many centering on the economic issues related to community development from a practical standpoint.

**Mastrovito, Gina. Manufacturing Summit Marks Second Year.**

This business article focuses on the role that manufacturing plays in Worcester county specifically and Massachusetts in general. Her report is from an economic summit related to manufacturing. Of interest to our project is Ms. Mastrovito's discussion of the role that manufacturing may play as development stimulus. Ms. Mastrovito's report relates that Massachusetts ranks 12<sup>th</sup> among states with the fastest growth rates of manufacturing activity.

She also, relates strategies generated from the economic summit which focus on technical work programs, cooperative industry wide assistance, grants from the US Department of Labor, and the redevelopment of brownfield sites.

These strategies, according to her report, offer opportunity for the continued development of manufacturing and economic contribution to Worcester County.

### **Worcester Regional Research Bureau. The 2000 Census: A Preliminary Look at Worcester and the Region**

This Census report for the City of Worcester basically showed us how the population of Worcester is changing both in size and racially. The report also showed some interesting issues that the city of Worcester should reflect on. These issues are the integration of newcomers of diverse backgrounds into the community, the education of the English language to new citizens that do not come from English speaking countries, and the decline of middle age and elderly when the Worcester region and surrounding towns are increasing in these age categories. Finally the report analyzes the change of population of minorities in Worcester.

### **Public Disclosure. Community Reinvestment Act Performance Evaluation for Commerce Bank**

This document evaluated Commerce Bank's performance in executing its responsibilities relative to the CRA. The Federal Deposit Insurance Corporation prepared the document. This disclosure rated Commerce bank according to three tests: the Lending, Investment, and Service Test. The disclosure relied on census tract information, internal bank documents, and other economic data to evaluate Commerce banks lending practices as they pertain to individuals, businesses, and community development organizations in accordance with the CRA.

The disclosure seemed to be thorough in its reach especially in its demographic, census, and other information about Worcester. The report is useful in that the reader

can see what the technical expectations of the FDIC are for a given bank and one can see what efforts toward CRA compliance a 'typical' bank is making. But, the report focused predominately on the mortgage and small business aspects of the CRA and dealt less the community development aspects.

This report is useful to our project both for its depth and as a model for how a bank is evaluated for CRA compliance in general. This report is also of value since it shows us a relevant research direction to pursue: the community development component of the CRA and how these funds may be obtained by interested parties.

### **Revisiting Worcester's Zoning Ordinance**

This report makes several recommendations to the City of Worcester on how the city applies its zoning laws. The report's focus is on a streamline of the zoning processes so that the city may see a greaser amount of private development on the level that other of similar size and type communities have seen over the past decade.

The recommendations include a pre planning process, one stop permitting, and a greater number of planning technical staff in offices such as the Office of Planning and Community Development. The report also makes recommendations intended to make less confrontational the development process and more like that in other municipalities. One example is the allowance of use variances. Currently, use variances that would allow flexibility in zoning are not allowed.

This report seems to be relevant to our project since the city's zoning influences what types of business are likely to consider pursuing opportunities in the city. It seems likely that the zoning law may serve as an incentive for some businesses, which are considering moving to or expanding operations in the city of Worcester.

### **Worcester Municipal Research Bureau, Revitalizing Worcester's Neighborhoods: Recommendations From Research Bureau Forums and Reports**

This research paper gives recommendations on what the City of Worcester should do concerning the deteriorating conditions of a number of neighborhoods in the City. The reason this paper was written was because at this time the city of Worcester does not have any program that addresses this deterioration. In the spring of 2000 the same year the Census was released, the Research Bureau had a series of forums to address and deal with the most serious problems of this deterioration. The forums discussed who are the key players in this process of revitalization. These key players are the residents and neighborhood associations which every neighborhood has, the role of business and non-profit institutions such as churches and colleges, the role of municipal government, and finally the role of three-way collaboration. The paper separated each of these key players that can seriously help in the revitalizing efforts and described how each could get involved and should get involved.

### **Sovereign Bank Community Reinvestment Plan Report**

This report provides information on the amounts and types of CRA activity that Sovereign bank is involved in. The report details its lending activities in the following areas: affordable housing, small business, community investment, and community involvement.

According to the report the bulk of its community loans and investment is in affordable housing, small business support, and consumer finance. The community development aspect receives the least amount of funding at 9 percent.

The report may be of limited use in that it shows the level of community development activity by this bank.

### **The 25<sup>th</sup> Anniversary of the Community Reinvestment Act: Access to Capital In w An Evolving Financial Services System.**

This report, published by Harvard University's Joint Center of Housing Studies presents an overview of the major historical developments that led to the creation of the

Community Reinvestment Act (CRA). The report also details the current state of affairs of the CRA in the context of an evolving financial services market.

Much of the report's discussion focuses on the financial sector's role in developing mortgage products for the lower income and the minority groups that the CRA was intended to originally serve. The report acknowledges that its major emphasis is on housing issues because the CRA was developed to address so-called redlining of mortgages and because most research has been devoted to the mortgage market.

But, the report also acknowledges that community development lending community development corporations is a clear part of its mission and may help the community to redevelop areas in need.

On the whole this report seems to be of a mixed use to our project. The report details how the CRA came to be and acknowledges that the CRA has a role to play in community redevelopment beyond the home mortgage market. Perhaps, this report is of most use because it points to a need for more research on the CRA and community development, with a focus on brownfield reclamation.

**Worcester Regional Research Bureau. Benchmarking Economic Development in Worcester.**

This report has statistical assessments of Worcester's commercial and residential tax base and tax rate. The report includes the assessment of Springfield, Providence, Worcester, and Hartford. The information provided on tax base is used to show the value all commercial and residential properties in Worcester. This tells the value and strength of Worcester as a whole. The tax rate of Worcester is currently \$34.24 for every \$1,000 dollars. Worcester's new residential and commercial growth has increased by 18.5% since 1996. This shows the growing economy in Worcester and the growth of the city. The unemployment rate is currently low this indicates a strong economy. The office space used in Worcester is at a higher rate than previous years.



This is still low compared to other cities. As of 2001 Worcester has 151 residential and 45 commercial buildings that are vacant. This means that Worcester's commercial and residential base is decreasing. Worcester is currently working to create a better permitting process and faster ways to get approved.