Experiences With Brownfields Cleanup And Reuse In Illinois Municipalities

By Norman Walzer, Michelle Norris, Gisele Hamm, and Lori Sutton
Illinois Institute for Rural Affairs

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Brownfield properties represent both challenges and opportunities for local public officials and community leaders. Without remediation, they may pose health and safety hazards and reduce property values of adjoining properties. However, when cleaned up, Brownfields can become attractive properties for redevelopment, often in the city center, with high traffic, telecommunications access, and the necessary infrastructure.

In the past several years, public programs have emerged to assist in assessing and cleaning up brownfield sites; such programs have helped local decision-makers return these properties to productive use. Examples of redevelopment projects exist across the U.S. and show that this process works well even during an economic downturn such as has occurred since 2000.

In fall 2002, the Illinois Environmental Protection Agency (IEPA), Division of Remediation Management contracted with the Western Illinois Regional Council and the Illinois Institute for Rural Affairs (IIRA), located at Western Illinois University, to conduct a survey of municipal experiences with brownfields remediation and redevelopment. Working with the Illinois Municipal League, IIRA identified and contacted a sample of 86 Illinois municipalities that met one of the following criteria in 2002:

- received a no further remediation letter
- had an Illinois Municipal Brownfields Redevelopment grant
- had a Targeted Brownfields Assessment performed by the Illinois EPA
- received an USTfields Pilot Grant from the USEPA

The 86 Illinois municipalities were surveyed using two questionnaires—one examining general policies and experiences and the other requesting information on specific parcels that met one of the above requirements. A total of 52 cities (60%) responded to the general survey and information was provided on 121 of the 229 parcels (53%). Follow-up interviews by phone follow-ups were conducted in several instances to verify information submitted or gather additional data.

In addition, case studies of five cities (Alton, Calumet City, Monticello, Sterling, and Chicago) were conducted to understand better how the brownfield process worked and to determine ways in which it can be improved.

Literature Review

The experiences with brownfields must be studied in the context of the literature on brownfield issues. Highlights of the brownfield literature are briefly presented in the report. Several strands are of special importance for this project.

1. Increased interest and aggressive approaches to brownfield redevelopment are a relatively recent phenomenon. Early analyses and discussions focused more on technical issues in addressing specific problems with properties. Handbooks were prepared to help deal with significant issues involving these properties in an attempt to allay fears of local officials of incurring a liability that could involve substantial costs.

2. Interest in integrating brownfields into local economic development policies and strategies grew during the 1990s as cities needed additional land for expansion. Public participation in decisions increased as discussions moved beyond guidebooks. This trend is more often seen in larger cities than in rural locations where the demand for industrial or commercial property is less or where the administrative staff is not large enough to undertake these projects. Greenfield locations, without the difficulties related to brownfield sites, can be more attractive in rural areas.

3. The growth in public programs to provide technical assistance and financial support for brownfield remediation or redevelopment, as well as a strong effort to inform local officials about the possibilities, encouraged local officials and practitioners to undertake more aggressive projects with vacant and brownfield properties. The Illinois EPA markets these programs extensively through statewide meetings and on-site technical assistance.

4. A positive outcome is that brownfield projects are not limited to business ventures; rather they now involve housing, recreational facilities, and other uses that contribute to the overall quality of life in communities. This broader role for brownfields in local development strategies is likely to expand local involvement in the future.

5. The need for accountability for public investment and documentation of brownfield redevelopment projects has led local practitioners to seriously evaluate previous efforts.

   Documenting outcomes is difficult for parks or other recreational programs that do not create jobs directly or stimulate private investment on the site. Capturing increases in quality of life or ways that a project may have affected investment in other areas of the city has been difficult for local officials.

Results from the General Survey

The general survey requested information on a variety of characteristics of brownfield properties, including economic conditions, investment categories, and expected returns.

Economic Conditions in Sample Municipalities

Responding municipalities were grouped into downstate (IEPA regions 1, 3-7) and those in Cook County and collar counties (IEPA region 2). The average population size (downstate) was 24,886 compared with 27,723 for cities in the Chicago area. The latter also are wealthier and more often reported growing economies.

Demand for commercial and industrial property is reported to be relatively low, but both city groups reported some demand for inexpensive buildings with Chicago area cities reporting more demand for commercial land. These responses partly reflect the current economic downturn.

Brownfield Types and Characteristics

In terms of square feet in Brownfield properties, city governments own 26.8 percent compared with 54.3 percent owned by private companies and 19.0 percent owned by other entities. Cities in the Chicago area differ from downstate cities because "other entities" own a much higher percentage (35.4%) as compared with 13.5 percent downstate.

On average, 33.4 percent of the properties have had environmental assessments with Chicago area cities higher (36.2%) than downstate cities (31.6%).

By far, the main actual or planned use (43.2%) for brownfield properties statewide is to return them to industrial or commercial use. This approach is slightly higher in the Chicago area (48.5%) than downstate (42.1%). The second most often reported planned use is to start a new industrial or commercial activity (28.7%). Mixed residential, industrial, or commercial land use was next (14.2%). Somewhat unexpected is the relatively few cities (4) that are holding remediated brownfields in reserve for future development.

Outcomes of Brownfield Projects

Considerable evidence exists to document that brownfields create jobs. Statewide, responding cities reported an average of 41 full-time permanent jobs retained and 85 full-time jobs created as a result of brownfield remediation. An additional 61 part-time jobs were retained and 35 part-time jobs created. These jobs are in addition to temporary construction jobs.

Likewise, brownfield projects stimulated substantial investment by businesses, leverage from financial firms, and investment by the state or the federal government. Diversity in the current stage, size, type, and location of projects make the investments hard to summarize. Consequently, the investment in brownfield redevelopment projects was categorized into small, intermediate, and large size categories. Summaries of the investments are shown with Chicago excluded from the investment analyses, due to the city's uniqueness—both in size and characteristics.

The average private investment per city in the small investment group was $50,318, the mid-range group averaged $2.95 million, and cities reporting the largest private investment averaged $8.4 million. Only nine cities reported leveraged funds, averaging $8.1 million.

State investment in brownfield redevelopment averaged $31,368 in the smallest category, $108,571 in the medium range, and $460,471 in the highest state investment group. Cities reporting federal investment averaged $34,500 in the small group, $275,000 in the middle group, and $1.0 million in the largest category.

Average local government investment in brownfields was $15,943 in the smallest category, $202,145 in the middle group, and $4.9 million in the highest investment cities.

Expected Public Financial Returns

Expected public returns from brownfield redevelopment and investment can be

important to the success of brownfield initiatives. Municipal respondents were asked about expectations such as changes in assessed valuation, retail sales from redeveloped properties, and building permits. The success of brownfield projects depends on the length of time that the redevelopment process has been underway.

The expected *average* net increase in assessed valuation, based on 19 respondents, was $6.0 million, statewide, with an average of $7.9 million in downstate cities and $3.4 million in the Chicago area.

Conservative and optimistic estimates were generated of the *average* expected increase in retail sales taxes from redeveloped properties. Statewide, the conservative estimate (14 responses) was $108,571 with the optimistic estimate of $245,250 (13 responses). Differences between downstate and Chicago area cities are substantial but not always consistent. Economic conditions are typically better in the Chicago area which partly explains the higher estimates, but size of project also is a major difference between the two city groups. The wide variability in responses and small number of respondents make generalizations difficult.

Since length of time that the property has been idle can be important in determining success, respondents placed city brownfield properties in one of four categories ranging from less than one year to more than ten years.

Respondents also reported, how long, on average, properties in their city had been inactive before redevelopment began. Statewide, 32.6 percent of respondents indicated properties had been idle for one to five years, and 30.4 percent reported properties in the five to ten year category. More than one-quarter (26.1%) of cities had property idle for an average of more than 10 years. Overall, downstate cities more often reported property idle for an average of five to ten years, but Chicago area cities are strongly represented in the one to five year category.

Municipal Involvement

Respondents are split regarding the extent to which Brownfield redevelopment efforts are important in managing city growth and development. Asked the importance of brownfield redevelopment to managing city growth and development, mayors responded with an average score of 3.48 on a five point scale (5 = very important). Although there was little difference reported by city location with downstate cities scoring 3.5 versus 3.45 for Cook and collar counties; non-growth cities reported brownfields as more important to economic development.

Different responses were found, however, in the extent to which brownfield remediation is a municipal responsibility. Respondents apparently are not as committed to brownfield redevelopment as a municipal responsibility with downstate cities more convinced of the role that city government should play.

When asked whether brownfield redevelopment is a part of the city's formal economic development strategy, decided differences by location were found with Chicago area cities more likely to report brownfields as a part of their city's strategy (66.7%) than downstate cities (50.0%).

More than half (62.5%) of responding mayors expect that brownfield properties

will require additional public funds to attract private investment with downstate cities more likely (66.7%) than Chicago area cities (57.1%) to report this attitude. Respondents, statewide, expect to spend funds on infrastructure upgrades (64.4%), technical support by city employees (57.8%), property tax incentives (53.3%), and low interest loans (46.7%).

Part of effective brownfield management involves promoting the properties to prospective investors and these efforts involve many groups within the city. Respondents reported that city administrators were most involved in these efforts, followed by the mayor or village president, IEPA representatives, city council, private consultants, and property owners.

Respondents were asked about information or assistance that would help them address issues or concerns with brownfields. Statewide, the highest priority (69.4%) was assigned to information about financing opportunities, followed by printed material about options and programs available and seminars or workshops about IEPA and USEPA programs. Presumably the printed materials and seminars would include financing issues which seem to be especially important. Chicago area respondents are more interested in financing materials which may reflect better opportunities in these cities.

As found in the literature review, respondents have engaged in public outreach programming for brownfield redevelopment including public forums (51.1%), community advisory task forces (42.2%), and dissemination of printed materials (31.1%). Local officials seem to have confidence in brownfield redevelopment and the case studies confirm the importance of outreach efforts.

Respondents also were asked about factors limiting the success of brownfield projects and highest on the list is shortage of local funds to undertake projects (3.43 on 5.0 scale). Also important are perceived potential liability (2.91) and environmental regulations (2.87). A comparison with earlier surveys show that efforts by IEPA have helped alleviate fears about potential liability from engaging in brownfield remediation and have encouraged work with local projects.

Most city officials (80.4%) monitor brownfield sites regularly with inspections by city personnel (65.9%), meetings with developers (61.0%), and reviews by city administrators (60.0%) of brownfield issues. In some instances, cities also have implemented institutional/ engineering controls on brownfield sites in compliance with their No Further Remediation (NFR) letter.

Redeveloped brownfield projects have substantially impacted the city. On a five point scale where 5 represents a major effect, city officials rated improved aesthetic appearance of the community as 4.07. Respondents also stated that brownfield projects have helped prioritize local economic ventures as well as decreased perceived health risks. The importance of these objectives, rather than job creation, suggests that performance indicators of the success of brownfield projects should include more than job creation, private investment, and other economic measures.

Results from Parcel Specific Survey

To understand the brownfield redevelopment process more completely, we also requested information from local officials about individual parcels that had met the survey criteria. The intent of this survey is to understand the current stage of the specific project, its intended purpose, investments made, and expectations for success in terms of jobs, investment, or other measures.

The largest number of brownfield projects was in former gasoline stations and manufacturing operations. Gasoline stations have several potential uses such as parks in the City of Chicago or parking lots or even commercial ventures in downtowns. Gasoline stations and manufacturing operations are more likely in the Chicago area cities while railroad yards and multi-use sites were more common in downstate cities. Depending on location, brownfield sites can be attractive when in high traffic areas with high quality infrastructure.

Property Management

Based on survey responses, the largest number of projects (42.6%) are "in progress" with one-third still in the planning phase and 24.1 percent having been completed. The relatively early stage of many projects means that performance indicators will change in the next several years as the projects move toward completion. Relatively more projects are in the planning stage in Chicago area cities while more projects are "in progress" in downstate cities. Specific parcels in Chicago area cities have been idle for longer periods of time with nearly all for one year or more. By contrast, 25.6 percent of projects in the downstate cities have been idle less than one year.

Statewide, a majority (53.2%) of the brownfield parcels are privately-owned with an average of 38.7 percent owned by cities. Relatively few of the city-owned parcels had been taken by eminent domain but in many instances cities had worked with owners to remediate the property for redevelopment.

Respondents (48.2%) reported having used legal access during the previous five years to secure a property from trespassers, conduct an environmental assessment, or otherwise protect public health and safety. Likewise, 42.9 percent had used regulatory authority such as liens, ordinance violations, and zoning on the properties.

The intended end-use of the brownfield properties mainly involved returning the property to industrial or commercial uses. Second most common is creating a new industrial or commercial use.

Clearly, the purpose of these projects is to create jobs. However, parcel location can determine most appropriate use. Approximately half (52.2%) of the parcels are in a Tax Increment Financing Zone and 17.4 percent are in an Enterprise Zone.

Investment in Properties

The size of the projects, stage of completion, and diversity of purpose make summarizing the financial investment difficult. However, financial estimates have been made based on the parcel surveys, and are grouped according to investment amount: small, intermediate, and large.

Respondents reported an average private investment per parcel of $7,286 in the small investment category, $39,786 in the intermediate parcel group, and $1.8 million in the parcels receiving the largest amount of private investment. Leveraged funds (six parcels) averaged $3.4 million. Average state investment was $17,447 in the smallest category, $37,205 in the middle group, and $156,158 in the large investment group.

Average federal investment (eight parcels) was $325,375. Local government spending averaged $9,725 in the small investment group, $53,626 in the middle size category, and $1.6 million in the largest class.

Non-monetary Benefits to the City

Respondents reported several non-monetary benefits to the city arising from the specific brownfield projects examined in the survey. Highest valued benefits (3.7 on 5.0 scale) include improved aesthetics in the neighborhood as reported in 84 of the parcel surveys.

Next in importance is increased marketability of the property (3.3). Also reported, but of lower perceived importance, is that residents are more conscious about environmental issues (2.3) and new more environmentally-friendly businesses have located in the city. The responses are fairly similar between the two city types except that increased marketability is relatively more important in downstate cities. Lower crime and drugs seem more important in the Chicago area.

A substantial number of jobs have been retained (67) or created (75) by the projects examined in this study. Given that many projects are in a relatively early stage of development, this number will probably increase in the future. Respondents reported that redevelopment efforts had increased the number of jobs compared with five years earlier. Likewise, respondents reported that, compared with past experiences, the jobs created in the Brownfields projects pay the same or more. This is especially true in the Chicago area.

Respondents were asked about the overall success of the brownfield projects. On a five point scale, Chicago area respondents rated more success (4.0 compared with 3.46) than downstate cities. These responses are partially determined by the fairly early stage of some projects with outcomes not yet determined.

Case Studies

A more complete understanding of the brownfield redevelopment process can be obtained from city representatives and business investors in the various projects. In this study, four cities were selected for case studies that varied by size and project type. Alton (pop. 30,496) in the St. Louis area engaged in two major projects involving a former glass container plant that is being converted into commercial and office space, and a former steel mill recently renovated to manufacture specialized steel products.

Calumet City (pop. 39,071) in the south Chicago suburbs undertook retail redevelopment efforts to clean up a blighted downtown district. Monticello (pop. 5,138) in south central Illinois

engaged in a cleanup process of a drug manufacturer and is currently considering alternative uses. Sterling (pop.15,451) experienced the closure of a steel and wire manufacturing company and is converting the site to several uses that build on rail facilities and assets such as large furnaces on the site.

A fifth study was conducted on brownfields in the City of Chicago. The sites include a former construction and demolition waste recycling facility that has been redeveloped into a green technology center; an abandoned "mixed-use" property converted into mixed-income housing; a former drive-in movie theater/illegal dumpsite that has been developed into an industrial park; and a former steel mill site that now includes a manufacturing and distribution facility, as well as park space.

In each case, local officials undertook a different approach and are in various stages of project development. Researchers talked with local public officials, city administrators, and business investors in each community. Several common themes arose in the discussions.

1. In all instances, city officials or administrators took the lead in organizing the brownfield redevelopment process. In some cases, they had a definite plan and purpose in mind while in others, the projects were initiated to remove an eyesore and then business investors played a major role in guiding the development process. However, in each case, it was important for the city to remove the liability issue by organizingand finding funding for an assessment process.

2. The role played by the Office of Brownfield Assistance in IEPA cannot be overstated. Initially, local officials often were unaware of the programs available for brownfield remediation and how to proceed. In some cases, there was apprehension about the liabilities involved. The Office of Brownfields Assistance was important in removing some of these concerns as well as in helping to secure funding.

3. Cities with a stated vision and organized plan moved more quickly in the redevelopment process. Sterling is an excellent example of this approach. The city council clearly indicated that it did not want to have vacant properties as a drain on the city. That vision, combined with a definite strategy, moved the redevelopment process along and led to property disposition and redevelopment.

4. Business investors, willing to work with city officials, are essential to project completion. In most instances, the municipal government had incorporated the brownfield projects into their economic development approach, although in some instances, a writtendevelopment strategy does not exist. Sometimes officials aggressively marketed the properties using local incentives.

   Other cities announced the properties and expected public benefits and then worked with potential business opportunities as they arose. Part of the specific strategy depends on whether

the parcels were intended for commercial or industrial use.

5. Follow-through on project development is important and is obvious in the cities interviewed. The redevelopment process takes many years and may continue through several city administrations. Having a well thought-out development plan will increase the chances that this continuity will happen.

Lessons Learned from the Case Studies

While each brownfield project varies in former use, intended outcome, methods of finance, and other factors, the projects contain several common elements and ideas that can be considered by other municipalities in contemplating brownfield projects. Several items that keep recurring in the studies are briefly discussed below.

- ***Local Champion***

  While the City of Chicago has access to some of the best expertise on issues relating to brownfields and an organizational structure to systematically manage brownfield redevelopment projects, it is clear that the commitment of Mayor Daley to these endeavors is important to their success. The same is true in several of the downstate cities. In each case, someone championed the project and was responsible for following through. Not always is the person a municipal official but, in most instances, the city government was directly involved in the implementation process by providing incentives or other attractions to make the development as viable as possible.

- ***Clear Plan of Attack***

  The projects that seem to have moved most quickly and successfully had a definite agenda and an organized approach. Designated areas and neighborhoods in Chicago, for instance, point the direction for potential and appropriate land uses in a specific section of the city.

  In Sterling, the city administration and council followed a definite strategy to contact former customers of Northwestern Steel and Wire Company and proceeded to market the brownfield site. It was a targeted approach focusing on the remaining assets. The outcome is that the properties were marketed successfully with the desired employment created.

- ***Public-Private Partnerships***

  Also important to the success of brownfield remediation is the ability of the city to partner with private agencies. Each of the successful projects examined in this study has involved extensive investment by private agencies. The city government must aggressively work with these investors if the project is to be completed successfully.

  Some, but not all, cases involved fiscal incentives, such as land write-downs. In most instances, a financial incentive such as a TIF or Enterprise Zone make investing in the property more attractive. Usually, there was a clear recognition that incentives could be used to offset disadvantages of the projects that could lead to higher redevelopment costs.

However, equally important is that the city government worked with property owners or buyers to identify potential liability and to work with IEPA to remediate the property so that a NFR letter could be issued. Without this letter, private investors may see the potential redevelopment costs of the properties as too high to warrant purchase.

The role of the city government varies with the projects. For instance, Calumet City purchased the property to remove an eyesore and change the nature of an important neighborhood. In Sterling, the city was not interested in owning the property but was able to work with a bankruptcy judge to find suitable buyers and work through the process. In Chicago, the role played by the city government was to assist in assembling the parcels and make them available to private investors.

- ***Brownfields as Part of Overall Development Process***

Cities with brownfields as an important component in an overall development process, such as Alton, Chicago, and Sterling, seem to have succeeded more quickly. Brownfields are seen as a property with special needs, rather than something that must be marketed in a totally separate way. Incorporating the brownfield parcels into the city development process offers economies of scale and focuses more resources on the remediation process than might occur if a separate brownfield unit in the city were established.

Small municipalities may be at a disadvantage especially if they have no organized development plan. Instead, they may respond to inquiries about industrial sites but do not aggressively market these sites to prospective businesses. If the demand for industrial or commercial property is not large, a full-scale brownfield redevelopment program may be difficult to mount.

- ***Access to Specialized Expertise***

Municipalities that have done well with brownfield redevelopment have had access to the legal and environmental expertise necessary to complete redevelopment in a timely way. This expertise includes knowledge and familiarity with federal and state programs that fund an environmental assessment or other aspects of redevelopment projects. Accessing specialized talent can be especially difficult in smaller communities without this expertise in-house. While consultants are available, they can be costly for small projects.

Inadequate access or use of highly qualified technical expertise can delay the redevelopment process—ultimately resulting in higher costs. For instance, purchasing properties without full knowledge of underground storage tanks or other obstacles can lead to higher prices paid than justified by the condition or economic potential of the property.

Fortunately, the IEPA, Office of Brownfields Assistance, works with local officials and businesses as

they embark on the remediation process. This technical expertise can be invaluable, especially to smaller municipalities without a full-time staff.

Local politics can also be a problem if the city council or other group is unwilling to enter serious negotiations for a property parcel because of local ownership. Too much may be paid for properties or they may be sold at arbitrarily low prices. Examples of these situations are readily available.

- ***Persistence***

Also important is the willingness of local officials and administrators to stay with a project until it has been completed. Projects may take several years and may even extend into the next administration. Creating an environment and a setting in which the brownfield remediation process is a recognized part of the city administration and policies is important to long-term success.

The need for persistence speaks to the importance of creating a brownfield redevelopment policy enacted by the city government with sufficient information on goals and strategies to cause subsequent administrations to continue the process. Linking the brownfield remediation to the economic development plan with incentives and other policies has been shown to be effective.

Concluding Observations

Brownfields exist in many, if not most Illinois municipalities, regardless of size. In some cases, they were formerly a gasoline station or dry cleaners while in others they were a large manufacturing plant. In still other instances, underground storage tanks from many years ago may exist and local public officials may not be aware of them.

Returning these properties to productive use is in the best interests of residents and programs exist to help community leaders design effective projects. The city government can play a key role in defining or removing the potential liability so that prospective buyers are comfortable in making a substantial investment. While local officials, especially in small communities, may have some trepidation in engaging in brownfield redevelopment projects, fortunately, substantial technical assistance exists in IEPA and the Department of Commerce and Economic Opportunity. The analysis in this study provides insights into some of the major issues involved in successful remediation and redevelopment.

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