



Connecting Smart Growth and Brownfields Redevelopment



School of Urban and Public Affairs
UNIVERSITY of LOUISVILLE

CONNECTING SMART GROWTH AND BROWNFIELDS REDEVELOPMENT

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Published November 2006
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Acknowledgements:

This publication would not have been possible without the able assistance of Susan Opp and Fae Goodman.
Design and layout by Patrick Piuma. Cover photo courtesy of EPA.

This publication was developed under the Cooperative Agreement No. PI83233601-1 awarded by the U.S. Environmental Protection Agency to the Center for Environmental Policy and Management at the University of Louisville.

TABLE OF CONTENTS

UNDERSTANDING THE LINKS BETWEEN SMART GROWTH AND BROWNFIELDS.....	3
<i>What is Smart Growth.....</i>	<i>3</i>
<i>Brownfield Redevelopment and Smart Growth.....</i>	<i>3</i>
<i>Barriers to Redevelopment.....</i>	<i>4</i>
PLANNING STRATEGIES.....	6
<i>Zoning, Parking and Building Codes.....</i>	<i>6</i>
Zoning.....	6
Reduce Parking Requirements.....	8
Examine Rehabilitation Building Codes.....	9
<i>Regional Development Strategies.....</i>	<i>10</i>
Urban Growth Boundaries.....	10
Explore Revenue Sharing Strategies.....	11
<i>Address Urban Infrastructure Needs through the Creation of Special Districts or Zones.....</i>	<i>11</i>
Historic Preservation Districts.....	12
Enterprise, Empowerment, and Economic Opportunity Zones.....	12
Corridors: Waterfronts, Railroad Lines Transit.....	12
Fix-it First Strategies.....	14
<i>Involve Citizens in Development Decisions.....</i>	<i>14</i>
FINANCIAL INCENTIVES AND FINANCING OPTIONS.....	15
<i>Tax Credits and Abatements.....</i>	<i>15</i>
<i>Historic Rehabilitation Tax Credit and Similar State Credits.....</i>	<i>15</i>
<i>Density Bonuses or Credits.....</i>	<i>16</i>
<i>Tax Increment Financing (TIF).....</i>	<i>16</i>
<i>Waivers of Development Fees.....</i>	<i>17</i>
<i>Split Rate Property Tax.....</i>	<i>17</i>
<i>Brownfield Specific Financial Tools.....</i>	<i>17</i>
INSTITUTIONAL PRACTICES.....	19
<i>Expedite Approval Process.....</i>	<i>19</i>
<i>Improve Public Access to Property Information.....</i>	<i>19</i>
<i>Assist in Marketing Community Wide Development.....</i>	<i>19</i>
<i>Land Assembly.....</i>	<i>20</i>
CONCLUSION.....	21
ENDNOTES.....	21
ADDITIONAL RESOURCES.....	22

UNDERSTANDING THE LINKS BETWEEN SMART GROWTH AND BROWNFIELDS

What is Smart Growth

Smart growth strategies create new neighborhoods and maintain existing ones that are attractive, convenient, safe, and healthy. They foster design that encourages social, civic, and physical activity. They protect the environment while stimulating economic growth. Most of all, they create more choices for residents, workers, visitors, children, families, single people, and older adults—choices in where to live, how to get around, and how to interact with the people around them. When communities engage in smart growth planning, they preserve the best of their past while creating a bright future for generations to come.

Communities around the country are searching for ways to get the most out of new development and to maximize their investments. Frustrated by development that requires residents to drive long distances between jobs and homes, many communities are challenging the rules that make it impossible to put workplaces, homes, and services closer together. Many communities are questioning the fiscal wisdom of neglecting existing infrastructure while expanding new sewers, roads, and services into the fringe. And in many communities where development has improved daily life, the economy, and the environment, smart growth principles have been key to their success.

This report discusses how smart growth land use and development strategies can also make brownfields redevelopment easier and more profitable. This report focuses on the most common strategies and tools that are currently used. Rather than prioritize or evaluate among techniques, this report provides a survey of tools and strategies available to communities. Policymakers and citizens are in the best position to determine which, if any, of these techniques are appropriate for use in their communities. After introduc-

ing how brownfields redevelopment and smart growth principles are related, the report examines planning, financial and institutional strategies and practices that are part of smart growth initiatives that have the potential to encourage brownfield redevelopment.

Brownfield Redevelopment and Smart Growth

Directing development towards existing communities is an important principle of smart growth. This principle encourages the reuse of existing infrastructure, adapting and reusing buildings, and more generally engaging in urban infill to meet development needs.¹ Directing development to existing communities invariably involves brownfield redevelopment.

Brownfields are defined in 2002 Federal Law as “Real Property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.” Many pre-existing buildings and urban parcels that can accommodate infill development fall under that definition.

A 1996 study found that brownfields in Detroit, Chicago, Milwaukee, and Cleveland could absorb one to five years of residential development, 10 to 20 years of industrial development, or 200 to 400 years of office space.² This means that if communities encourage development in existing areas and with that the redevelopment of brownfields, communities can reap real benefits. These benefits can include: a stronger tax base, closer proximity of jobs and services, taxpayer savings, reduced pressure to build on greenfield sites, and the preservation of farmland and open space. Furthermore, directing development to existing communities can also support cleaner air and water. When development occurs in existing

Principles of Smart Growth:

1. Mix Land Uses
2. Take Advantage of Compact Building Design
3. Create a Range of Housing Opportunities and Choices
4. Create Walkable Neighborhoods
5. Foster Distinctive, Attractive Communities with a Strong Sense of Place
6. Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas
7. Strengthen and Direct Development Towards Existing Communities
8. Provide a Variety of Transportation Choices
9. Make Development Decisions Predictable, Fair, and Cost Effective
10. Encourage Community and Stakeholder Collaboration in Development Decisions with Smart Growth

(Source: Smartgrowth Network. www.smartgrowth.org/)

places it is easier to protect open space and natural lands and to minimize increases in impervious surfaces. This helps to protect watershed-wide water quality. Directing development can also create more transportation choices in existing places, which can lower vehicle miles traveled and ultimately improve regional air quality.

Barriers to Redevelopment

A range of challenges complicate brownfield redevelopment. Developers are often hesitant to take on brownfields because of issues of actual or perceived contamination, concerns about liability, and the cost of clean up. These challenges have lessened in recent years as both the public and private sector have offered solutions. Federal and state governments have developed programs that clarify the rules surrounding liability and provide protection to landowners and developers from liability claims. Additionally, the private sector has developed market solutions such as environmental insurance to safeguard against future liability claims and clean up cost overruns. Numerous federal, state, and local governments have provided

funds to support assessment and clean up. Technological solutions have been developed to reduce clean-up costs. Despite these policy innovations, concerns about liability and clean-up costs sometimes still prevent brownfield redevelopment, especially of smaller, less marketable sites.

Current development practices and policies also have an affect on brownfield redevelopment including zoning and government policies and regulations, and taxpayer subsidies that encourage greenfield development. Although they are not equal products, brownfield and greenfield sites can and do compete with each other for new development activity. Greenfield developments often win in this competition because many government policies often make it easier for developers to build on the greenfield parcels rather than the brownfield parcels. Greenfield development remains attractive to developers for its ease of access and construction, lower land costs, and potential for larger parcel assembly. Additionally, typical zoning requirements in edge areas are often easier to comply with, as these areas often have few existing building types that new con-

Barriers to Redevelopment: Different Perceptions in Asheville, NC.

Brownfield redevelopment is the cornerstone of smart growth efforts in Asheville, NC. When officials at the Land of Sky Regional Council asked public and private sector officials in Asheville they found clear differences of opinion.

According to the LOSRC analysis, the private sector indicated that land use and development policies were the primary challenge to brownfield redevelopment. They include (in order of importance):

- Lack of proactive planning and strategic investment
- Inflexible zoning and unpredictable and time consuming rezoning process
- Land assembly and inconsistent, inefficient and lengthy approval and permitting processes;
- Limited financing for infill projects and mixed-use projects and
- Neighborhood opposition to higher density and infill development.

According to LOSRC analysis, very few of these land use and development issues were mentioned as barriers by the public sector. The public sector consistently stressed that contamination and clean-up costs were the primary reason that brownfield properties are not redeveloped.

For more information: Contact Linda Giltz at LOSRC. (<http://www.landofsky.org>)



struction must complement, and they have a relative absence of residents who may object to the inconvenience or disruption caused by the new construction. The cost of greenfield development is often subsidized by the public sector through the provision of road, sewer, and water networks and through the use of average-cost pricing, which can underestimate the true per-unit cost of expansion. Furthermore, developers are often reluctant to develop infill and brownfield properties because of unpredictable local approval processes, permits and fees that raise development costs, density restrictions, and nimbysm. These factors create serious costly road blocks.

Policy incentives can help address these barriers and encourage developers to redevelop brownfield properties. While developers may not choose a project based on an incentive available to them, having incentives or policies that facilitate brownfield projects is an important part of influencing which projects get a developer's attention, and can help level the playing field between greenfield and brownfield development. Developers generally prefer to take advantage of low risk incentives that guarantee a financial return and ones that they can receive upfront. Communities can increase the use of incentives and policies by ensuring that they are implemented in a fair, timely, and predictable manner. This can go a long way in strengthening the desired effect of a proposed incentive.

Strategies

Smart Growth strategies that make brownfields development more profitable and more attractive include a variety of options. They can roughly be divided into land-use planning strategies, financial incentives, and institutional practices. Planning strategies include creative zoning and building codes, regulations that permit mixed use and higher density, the creation of special districts, and any other effort that eases or directs investment and development to urban areas where numerous brownfields exist. Financial incentives include, but are not limited to, specialized tax credits such as historical preservation tax credits, tax abatement, density credits or bonuses, Tax Increment Financing (TIFs) of various sorts, development fee waivers for infill, and split rate property taxes. These incentives can be linked to particular districts developed in the planning strategies mentioned above. To make these incentives valuable, institutional practices must facilitate or expedite various aspects of development projects. Better practices range from simply making information about sites accessible to the public to assisting in getting land development ready by helping with cleanups or land assembly and title clearance. A key to successful redevelopment of brownfields is making sure that the unique needs and goals of a community are addressed through policy. One size does not fit all so we present general approaches that communities can modify to fit their needs.

In a mail survey of private developers, researchers at Resources for the Future, University of Louisville, and University of Maryland found that when presented with several incentives, the protection from third party liability was most highly valued by developers considering brownfield projects with protection from cleanup liability, and relief from public hearing requirements also being noted as important. (See Wernstedt, Kris, Peter B. Meyer, Anna Alberini, and Lauren Heberle. 2006: "Incentives for Private Residential Brownfields Development in US Urban Areas." *Journal of Environmental Planning and Management*, 49(1). 101-119.)

Brownfields as Part of Strong Smart Growth Plan

- Clean up increases supply of developable land
- Redevelopment reduces pressure for outward growth
- Infill reduces need for new greenfield construction
- Renewal improves already built, urban communities

Selected Smart Growth Planning Principles that Benefit Brownfields Redevelopment

- Creative Zoning and Building Measures
- Directing Development Toward Existing Communities
 - Regional Development Planning
 - Address Existing Urban Infrastructure Needs
- Make Development Decisions Predictable, Fair, and Cost Effective
- Encourage Community and Stakeholder Collaboration in Development Decision

PLANNING STRATEGIES

Zoning, Parking and Building Codes

When communities assist in redeveloping brownfields they often have to change zoning, parking, and building codes. Sites which were once zoned industrial may not be marketable as such due to changing markets, development of residential areas nearby, or changes in environmental emission standards that might prohibit certain industries from locating there. Sites that were once gas stations, dry cleaners, or other smaller sites can be difficult to assemble if they are limited to prior use restrictions, or if the future use does not recapture the cost spent to clean the small plot of land. Even brownfield properties in residentially-zoned neighborhoods might not be suited for residential use in the existing market. Parking regulations need to be examined since infill sites may not be large enough to accommodate required parking spaces or because other viable transportation options exist nearby. Building codes need to take into account historic buildings and the limited use or oddly shaped parcels that are sometimes found in older urban areas. Flexibility in zoning, parking, and building codes can support brownfield redevelopment.

Zoning

Zoning that permits well-planned compact mixed-use development can encourage brownfield reuse. A compact, mixed-use project can benefit multiple constituencies within a given community by meeting several needs. This type of development helps support walking and bicycling because land uses are closer together. Compact, mixed-use places, such as downtowns and main streets, often give communities their distinctiveness and identity and tend to be vital centers of community life. Compact and mixed-use development can also increase housing choices in a community and convey significant fiscal and economic benefits in a small amount of land area. For example, Arlington County, VA has a policy of encouraging compact, mixed-use development along the Rosslyn-Ballston transit corridor. This corridor generates 33% of all tax revenue in the County but uses only 7% of the county's land area. Another important note is that commercial uses in proximity to residential areas often have high property values, which can increase the tax base for a community. Compact, mixed-use development is a resilient product that performs well in good and bad economic times.³

Developers tend to like compact, mixed-use development because they often make more money building these products. A compact development means less land per unit, reduced site preparation, and lower per unit infrastructure costs - all factors

that reduce the hard costs of construction and increase profit for developers.⁴ The lack of compact, mixed-use neighborhoods and developments in many metro areas means that there is often a significant demand for them. A 1999 study of single family homebuyers that bought homes in compact, mixed neighborhoods showed that, on average, the homebuyers were willing to pay up to \$20,000 more to live in their neighborhood than to live in the same house in a conventional subdivision.⁵ Lastly, by mixing land uses a developer can insulate themselves somewhat from the negative affects of the economic cycle. Diversity makes it easier to spread risk across different products, and capitalize on what is desired by the market at any given time. The added market value of these compact, mixed-use products can help developers cover clean-up costs associated with brownfields.

The location and physical attributes of many brownfield properties makes them viable parcels for compact, mixed-use development. Zoning and development regulations in many communities make redeveloping brownfields compactly with a mix of uses extremely difficult, if not impossible. By changing zoning to permit this type of development, communities can increase the development value of certain brownfields and thus make it easier and more profitable for developers to redevelop brownfields. Important to note here is that demand for compact, mixed-use develop-

ment varies by market. Simply changing the zoning to permit such developments is not sufficient if the market does not support such uses. In areas where the market supports it, changing zoning and building codes to permit higher density or mixed use can help improve the profitability of a project in a way that encourages developers to consider brownfields and other infill projects.

Included here are two specific examples of projects where flexible zoning facilitated compact, mixed-use development on a brownfield.

Density and Mixed Use

The Belmont Dairy in Portland, Oregon is a great example of how a brownfield can be turned into a mixed use development, use existing buildings, fit into its surroundings, and help revitalize the neighborhood. The Dairy had been abandoned in 1990 and remained vacant due to contamination concerns. From a policy and market sense, redevelopment of the Dairy made sense. The site was located within an established business district, close to downtown (1.5 miles southeast), served by public transportation, and supported by neighborhood residents and city officials. Phase I of the project was completed in 1997 and included 19 market-rate lofts and 26,000 square feet of ground-level retail and 66 affordable housing units. Phase II of the project consists of 30 row houses and was completed in 1999.

The net residential density of Phase I is 70 units per acre and 33 units per acre for the Phase II row-houses. The densities for the row houses are higher than other row house densities in Portland. (See Smart Growth Network, www.smart-growth.org). Project design helped the project fit into its surroundings and create a pedestrian friendly streetscape. The higher density resulted in real benefits. This increased density made the project more profitable for the developer and, at the same time, made it possible for more people to live within a walkable community, with transportation and housing choices, and neighborhood retail. In the two-year period following Phase 1 construction, the area around Belmont Dairy experienced a 52-percent increase in the number of businesses.



Photos courtesy of EPA and Shiels Oblatz Johnsen, Inc.

Mixed Use

In Louisville, Kentucky, the city recently implemented a change in its zoning law to include a “planned development district” (PDD) that permits mixed use development. This particular change was the result of the city’s frustration in dealing with a highly contaminated former industrial site that was in very close proximity to an historical working class neighborhood. The site is highly marketable. It is close to an established neighborhood, highways, rail, and the central business district. Pressure to redevelop the site was strong. There were however differing development objectives for the site. The neighborhood organization wanted the site to be used for homes while the owner of the site did not want to incur the risk associated with building a residential development on a brownfield. The entire site had varying degrees of contamination present, so it made sense to consider placing housing or retail on the least contaminated parts of the site, and commercial or light industrial uses in the other parts. Allowing for mixed land uses would make it possible to meet the community’s goal of increasing housing choices in the neighborhood and satisfying the landowner’s desire to minimize risk and exposure. The zoning code was revised to permit mixed use development through the creation of a PDD with a condition that a plan be developed by either the neighborhood organization or by a city agency, and then approved by the planning commission. The final plans for the site have yet to be completed and are still being debated. However by making it possible to build mixed-use development through the adoption of the PDD, the city has increased investor and developer interest in cleaning up and redeveloping the property. It is thus more likely that the site will be brought back to a productive use.



Photo courtesy of Grubb and Ellis.



Photo by Kevin Steller.

Dense and mixed-use zoning on their own may or may not increase the profitability of a development project. The existing supply of land and the marketability of the location of any specific project will certainly affect the ensuing profits. However, in cases where developable land is in demand and the location is marketable, an increase in density in a particular area may indeed more than make up for the costs incurred for redeveloping a brownfield. In areas where the cost of cleanup, or the risk incurred to perform an environmental assessment, may be the only thing inhibiting a brownfield from being redeveloped, increasing density allowances and permitting mixed use may increase a developer’s willingness to consider redeveloping a brownfield. Density bonuses are discussed further under financial tools.

Reduce Parking Requirements

Parking is a significant development cost. The price of a parking space can range from \$4500 to \$22,000 per space depending on the kind of development being considered. (See *Parking Alternatives: Making Way for Urban Infill and Brownfield Redevelopment*, EPA 1991.) Many municipalities have minimum parking requirements for new development and infill projects. These regulations and codes establish the amount of parking that a developer has to provide in their project. Most parking standards establish a set amount of parking for a given square footage or number of units.

Most parking requirements assume that all trips will be by private automobile. This is not necessarily the case in many of the existing neighborhoods that include brownfield properties. Many of these neighborhoods have, or can, accom-

modate a diverse mix of uses, are served by transit, are places where walking is possible and foot traffic is high, or where car ownership is low. In these instances, local parking standards require developers to provide more parking than their project needs. This requirement can raise development costs, which can make projects untenable or limit development options for a site. Minimum standards can also make it difficult or costly for developers to build a development that fits into the neighborhood context or that helps meet other community goals such as supporting walking and bicycling, increasing affordable housing, parks and open space. For example, The Buckman Heights Apartments and Buckman Terrace is a housing and retail development in Portland, Oregon. The project is located in an area that includes light rail service, dedicated biking paths and is walkable to major employment centers. The City has a minimum-parking requirement of .5 spaces per unit - much

lower than the typical urban standard of 1 to 2 spaces per unit. Because of the low parking requirement developer costs were reduced by \$875,000. Land, that under standard parking requirements would have had to be used for parking, could instead be used to increase the amount of affordable housing in the project. The project has 80 affordable housing units.

Communities can reduce parking requirements when it makes sense. By doing so they can make it easier and less costly for developers to redevelop infill and brownfield parcels, give developers greater flexibility in project design, and support redevelopment that meets community goals. Flexible parking requirements can support more creative end uses for brownfield properties, including compact, mixed-use development.

Examine Rehabilitation Building Codes

Brownfields often include historic or older buildings (not just vacant land) whose renovation or rehabilitation benefits communities. Renovation and rehabilitation can expand the tax base, direct development to existing communities, and add money to the local economy. Rehabilitation expenditures have increased from \$11.4 billion in 1962 to \$120 billion in 1998.⁶ Preservation and rehabilitation contributes to the distinctiveness of places which, in turn, attracts tourist dollars. It also supports small business development, because it is often less expensive for small businesses to locate in a historic building than it is to locate in a new shopping mall, office, or industrial park. Local building codes govern the design and construction of new buildings. Many codes do not include requirements or standards for the renovation and rehabilitation of existing buildings. Absent these standards, it is typical practice to require that older buildings conform to standards for new construction. This often makes renovation and rehabilitation expensive. In the case of brownfields, this adds to the obstacles

developers face in returning a property to productive use. Also, most codes place significant latitude in the hands of local code enforcement officials to determine the extent to which rehabilitation must meet the requirements for new construction. This can create an unpredictable and arbitrary process that increases the cost of renovation and rehabilitation and can deter building owners from investing in their properties. The end result is deterioration of building stock and ultimately property abandonment. In some cases, this situation has actually helped to create more brownfields.

Most local building codes are based on a state building code. In some instances, the state code establishes the rules for building construction and in others the state code serves as a model for local adoption and use. Some states mandate that localities adopt the state code or provide incentives for local adoption, and others leave the decision to the locality. New Jersey adopted a rehabilitation subcode in 1997. The code had an immediate impact on redevelopment activity across the state. It has been cited as responsible for increasing rehabilitation spending in New Jersey's five largest cities by 60%, moving Newark and Jersey City to the top of the state's list of locations experiencing development activity, and increasing rehabilitation related spending from \$179 million in 1997 to \$287 million in 1998. The subcode has reduced the average cost of a rehabilitation project by 10%. Some projects have seen their costs reduced by as much as 50%. New Jersey's success has motivated many other states to initiate efforts to update their building and rehabilitation code. Since 2003, 34 states have started efforts to update codes.



Photo courtesy of EPA.

The New Jersey rehabilitation subcode supports the redevelopment of brownfield properties, such as the Marina Village redevelopment in Elizabeth, NJ. Ten contiguous brownfields properties in Elizabeth, New Jersey are now the location of a 35-unit affordable residential development called Marina Village. The 10 properties are located in the Elizabethport neighborhood, the oldest section of the city. An EPA Brownfields Assessment grant award and a Memorandum of Agreement with the New Jersey Department of Environmental Protection enabled environmental assessments to be performed on the properties. Based on the assessments, the New Jersey Redevelopment Authority awarded the city \$525,000 for the cleanup of metals and semi-volatile organic compounds in the soil. The resulting redevelopment effort leveraged \$6.2 million in additional investment and created 35 affordable housing rental units.

Regional Development Strategies

Regional planning and development strategies support coordination of planning, development, and infrastructure decisions so that development occurs in areas where growth is desired and away from locations that a community wants to preserve, such as open space, resource lands, and other environmentally sensitive areas. Most often the desired development locations are existing communities where infra-

structure investments have already been made. Existing communities are the places where most brownfield property is located. Encouraging growth to the existing communities can, therefore, also support the redevelopment of brownfield properties. This section discusses how two regional planning strategies, urban growth boundaries and regional tax base sharing, can encourage development in existing locations and support brownfield redevelopment.

Learn More

To learn about other regional planning and development strategies that direct development toward existing communities, see *Getting to Smart Growth: 100 Policies for Implementation* and *Getting to Smart Growth: 100 More Policies for Implementation*, available on-line at http://www.epa.gov/smartgrowth/getting_to_sg2.htm.

Urban Growth Boundaries

Lexington, KY

Lexington KY, adopted an urban growth boundary in 1958. The city and Fayette County coordinate planning and infrastructure activities so that new development is directed towards an Urban Service Area (USA) that includes the city of Lexington and away from the county's Rural Service Area (RSA). The Urban Service Area (USA) was expanded in 1996 to accommodate more development and in 1999 the county implemented an RSA land use management plan that directs the county to purchase conservation easements. This was done to further protect the horse farms in the area and to preserve the area's heritage. The USB has been successful at directing development to Lexington and protecting open space in the county. All of the development activity in the city and county is concentrated in approximately 26% of the county's land area.⁷

Portland, OR

Portland, Oregon's growth boundary was established in 1979 following the passage of state legislation in 1973 that required all cities in the state to establish them. The boundary defines areas intended for development and those that were to be kept in agricultural and forest use (Porter, 1996). The growth boundary has directed reinvestment to Portland's urban areas and helped redevelop brownfield properties in the City. Portland's brownfields redevelopment program is one of the strongest in the country and was identified as an EPA Showcase Community, one of sixteen, in 1998. In recent years, there has been conflict over whether the boundary has unfairly limited development and, according to some, it has yet to fulfill its promise in curbing sprawl.⁸

Boulder, CO

Boulder, Colorado's comprehensive plan establishes zones for development and preservation. It directs development to already developed areas where redevelopment is desired and infrastructure already exists, and away from agricultural and natural lands that the city and county want to protect. The Boulder Valley Planning Area is divided into three areas. Area I includes lands that can absorb more urban development. Area II are county lands that could absorb new development if infrastructure exists to serve the development. This area is further divided into two parts, the first that will be made available to developers in the next three years and the second that will absorb further development over 15 years. Area III is unincorporated and is divided into areas that will be protected from development and areas that will be reserved for development beyond 15 years. The plan is re-examined every five years to ensure that sufficient land exists to accommodate new growth. Boulder has also implemented an Open Space and Mountain Parks program to preserve the natural surroundings and agricultural lands that surround Boulder. (For more information see <http://www.ci.boulder.co.us>.)

Explore Revenue Sharing Strategies

Interjurisdictional competition over tax base can shift development activity from existing centers to greenfield locations. Municipalities often compete with each other for new development activity in an effort to increase their tax base. They enter into bidding wars where they often offer new infrastructure and tax breaks to companies to entice them to locate in their community and typically on greenfield sites. This competition for tax base can shift development away from existing cities and communities.

Several localities, most notably Minneapolis and St. Paul, Minnesota, have adopted regional tax base sharing to support development in existing communities, reduce fiscal inequities and spend taxpayer money wisely. Under this approach, tax revenue (usually from property tax assessments or sales tax revenue) is distributed across a region based upon factors such as where the revenues were generated, and population size, population, or other measures of disparity. Declining communities benefit from this arrangement because they receive revenue that can be used to support redevelopment activity, including brownfield redevelopment. Growing communities receive an additional stream of revenue that can reduce their reliance on new development to increase their tax base.

Officials in Northern Kentucky are considering use of a variation of tax base sharing to accommodate pressures for a growing population around Cincinnati and to protect farmland and open space in adjacent counties. Under this proposed approach, revenue will be shared across jurisdictions based upon the jurisdictions willingness to accommodate or limit growth and development. Jurisdictions that chose to limit growth and development will be compensated for this through revenue from jurisdictions that chose to accept a greater share of regional development activity.

For example if county A has been built out but its neighboring county B is just starting to experience intense unwanted growth, they can set up an arrangement where county B limits development, thus redirecting development back to county A. Since County B might lose potential tax revenue from reduced development County A would "share" revenue generated from new growth with County B. This approach would support infill and brownfield redevelopment in County A.

Learn More

For more info on the pros and cons of tax base sharing see Lincoln Institute of Land Policy, *The Value of Land: 1998 Annual Review* or The National Association of Industrial and Office Properties webpage on this issue (<http://www.naiop.org/governmentaffairs/growth/rtbrs.cfm>)

Growth management techniques such as Urban Growth Boundaries are often criticized for raising the cost of housing in communities that adopt them. For more on this issue see: *The Link Between Growth Management and Housing Affordability: The Academic Evidence* <http://www.brookings.edu/es/urban/publications/growthmanagexsum.htm>

Address Urban Infrastructure Needs through the Creation of Special Districts or Zones

State and local governments spend billions of dollars annually to build and maintain roads, schools, sewers, buildings, parks, and other infrastructure. Where and how infrastructure dollars are spent impacts land use and development patterns. Development tends to follow infrastructure. Infrastructure spending in undeveloped locations supports greenfield development while infrastructure spending in existing communities supports infill and brownfield redevelopment.

A number of states and localities are using infrastructure spending to direct growth and investment to existing communities. They are doing this because they want to spend taxpayer dollars wisely, promote reinvestment of existing city and town centers, slow consumption of open space, and improve the quality of life and economic competitiveness of existing communities.

Policies that prioritize infrastructure spending and improvements to existing communities and older parts of municipalities support brownfield redevelopment. Many brownfields are older, historic, or abandoned properties. They, or the neighborhoods they are located in, need infrastructure updates and repairs to support new development activity. There are several creative ways of directing investments toward these areas.

Historic Preservation Districts

Municipalities across the country are prioritizing infrastructure investments by designating areas with brownfields as historic preservation districts. Once designated as a historic preservation district these districts typically receive priority status in grants, tax revenues, and infrastructure improvements. Prioritizing investments sends a signal

to the private sector that government supports development. This can give the private sector assurances and encourage them to follow with their investments.

The creation of historic districts triggers access to historic preservation funds that can be used to offset the cost of a brownfield redevelopment. (Historic preservation funds are discussed more fully under the financial incentives and financing options section of this report). Creating a historical district helps draw attention to the cultural value of an area which can work to increase investment. Historic districts also add predictability and certainty to the development process. Developers are more likely to redevelop property if they have assurances that an area will retain its historical character and that other developers will have to comply with the same development requirements.

is a good example of a brownfield site that was redeveloped because it was located in an Enterprise Zone. This particular brownfield site was located in the East Central Urban Renewal Area, an Economic Opportunity Zone in downtown Worcester. The project benefited from a combination of grants and incentives that were targeted to this special district. The project is expected to provide close to \$2 billion in economic benefit over the next 20 years, with 1.5 million visitors annually. Redevelopment has added 2,400 jobs to downtown Worcester (<http://www.mass.gov/dep/cleanup/medbr.pdf>.) [Also see discussion of Montgomery Park Business Center on page 15]



LoDo, a newly revitalized historic district, in Denver, CO.

Photo by Randy Brown courtesy of Denver Metro Convention & Visitors Bureau.

Enterprise, Empowerment, and Economic Opportunity Zones

Enterprise or Empowerment Zones have historically been used to encourage economic development within geographical districts in need of investment. The zones are areas where tax abatements and regulatory relief are made available to companies who chose to locate within the zone. For example, in Kentucky, Economic Opportunity Zones are those with very high unemployment and where developers can receive up to 100% of income tax credit from projects located in that area. These have been marginally successful and criticized for not spurring the expected economic development. Despite this criticism, they can serve to create additional economic incentives for directing development to urban areas where there are a significant number of brownfields. Their effectiveness to encourage brownfield redevelopment depends upon the kinds of tax and regulatory relief offered to businesses who locate in the zone. The Medical City Project in Worcester, MA



Corridors: Waterfronts, Railroad Lines Transit

Some communities, rather than identifying geographic districts as mentioned above, identify corridors, waterfronts, or transit lines where infrastructure is in need of maintenance or improvement. Prioritizing capital investment to these areas supports brownfield redevelopment. This is because many brownfields are found along former industrial corridors, commercial corridors, waterfronts, and rail road lines that are either abandoned or under-utilized. Efforts to revitalize waterfronts, encourage reuse of rail-lines as greenways (rails to trails), and transit-oriented development all can increase the redevelopment of brownfields in those corridors.

Waterfront redevelopment: Louisville, Kentucky

Louisville, Kentucky's waterfront development (winner of a 2002 Phoenix Award) also remediated substantial brownfields. In 1990, residents of Louisville established a new vision for the community. Residents and leaders wanted to make Louisville a 24-hour city where people could work, play, and live. A central part of their strategy was to reclaim the City's waterfront. The effort to reclaim the waterfront began by investing in the park's green infrastructure, a 55 acre public park (Waterfront Park). Since 1994, \$100 million has been invested in Waterfront Park, 1/3 of which has been funded by private donors. Redevelopment of the park and an adjacent parcel that is now home to the City's minor league baseball team, The Bats, has spurred redevelopment of brownfields and other properties in the nearby downtown. In a 2003 survey, The Louisville Waterfront Development Corporation estimated that over \$350 million of development has occurred in the waterfront district. New development in the waterfront district and downtown include numerous condominiums, apartments, office space, restaurants, and galleries



Photos by John Gollings, courtesy of Hargreaves Associates.

Rails to Trails: Southeast Michigan Greenways Trail

The Southeast Michigan Greenways Trail is an example of focusing investment on the network of unused or abandoned rails in the Detroit area. Funding sources include the Rails to Trails Conservancy and the Trust for Public Land among others. Funding for such projects can be packaged with other financial sources to remediate sites along rail lines. Rails to trails project can bring attention to brownfields. For example, the Southeast Michigan Greenways Trail will link suburbs and urban cores, strip malls and urban brownfields. (See <http://www.traillink.com> and www.tpl.org for more on the Southeast Michigan Greenways Trail.)



Photo courtesy of Michigan Trails and Greenways Alliance.

Transit-Oriented Development

In an effort to increase transit ridership and use transit investments to stimulate development activity, communities nationwide are supporting transit oriented development. Transit Oriented Development concentrates higher density, mixed-use development around transit stations. Walking is critical to meeting the goals of TOD, therefore streets and land uses around the transit station area are designed to support walking and bicycling. Transit-oriented development can help communities expand transportation options for residents. By locating a large number of potential transit users within walking distance of a transit stop, TOD generates the ridership needed to support transit investment. Transit investments also increase the values of adjacent property. In instances where the adjacent properties are brownfields, transit investment and TOD can add substantial value to the land and increase the likelihood of redevelopment. For instance, TOD along the Hudson-Bergen Light Rail line has supported brownfield redevelopment in Jersey City. The line was built primarily on brownfields and since opening in 2000, developers have built approximately 4,164 housing units (See *On Common Ground*, Summer 2006:16). The Marin Boulevard station was constructed on abandoned industrial property.



Photo by David Pirmann.

Denver, Colorado is beginning to experience similar results with their TOD efforts. In November of 2004, Denver voters past the "FasTracks" ballot measure that would allow for sales tax revenues to fund an expansion plan for 6 new transit lines [see <http://www.denvergov.org/TOD/template26182.asp>]. The city has made a commitment to creating Transit Oriented Development in areas where it makes sense and works with their comprehensive plan, Blueprint Denver. Their commitment to TOD is supporting brownfield redevelopment. One such project is the redevelopment of the former Gates Rubber Company. . When completed this project will include 4,000 residential units, and up to 4 million square feet of commercial, retail, entertainment, service, and office space. Access to transit and flexible zoning made redevelopment of this 50-acre brownfield parcel viable. The Gates project has commenced demolition and initial building. The developers project build out between 2015 and 2020.

Fix-it First Strategies

Fix it first strategies prioritize infrastructure spending. Under these strategies spending is focused first on the operations and maintenance of existing infrastructure, prior to spending on new construction. State governments have largely used this approach when establishing transportation spending priorities. “Fix it first” policies support brownfield redevelopment by shifting

spending to existing neighborhoods and communities. This approach can be used by localities and for non-transportation spending. For instance, localities can use a “fix-it-first” approach by choosing to locate new civic office space on brownfields or properties adjacent to other brownfields. This action could encourage developers to redevelop properties in those communities by demonstrating that local government has a stake in the area as well.

Learn More

For more information see NGA Fix it First Issue Brief <http://www.nga.org/Files/pdf/0408FIXINGFIRST.pdf> outlining fix it first policies in PA, MA, CA, DE, MI, IL, SC. See also, 1000 Friends of Wisconsin Transportation Policy Initiatives –Fix-It-First: http://www.1kfriends.org/Transportation/Transportation_Policy/Fix-it-First/Fix-it-First.htm



Photo by Liz Martin.

Involve Citizens in Development Decisions

Communities are increasingly involving citizens in development and planning decisions. Encouraging community and stakeholder collaboration can lead to creative, speedy resolution of development issues and greater community understanding of the importance of good planning and investment. Involving citizens in the process of redeveloping brownfields has clear benefits. For instance, local citizens often have intimate knowledge of past uses of sites that may not be on public record and can therefore help reduce risk by increasing the knowledge of potential past contamination. This knowledge can make for a more informed due diligence process. Residents know whether they have seen dumping or not and will often jump at the opportunity to help revitalize

abandoned or underutilized brownfields in their area. Involving local citizens in early planning can increase the likelihood of project acceptance and reduce the risk of potential conflicts. Even as some developers may balk at the idea of spending time working toward community consensus, that time is often shorter than the potential time and money spent on lawsuits or dealing with community opposition that could result if decisions do not involve citizens or try to address their concerns. Community involvement early on can also build acceptance of projects that citizens may be unfamiliar with, or are hesitant to accept, such as compact and mixed-use developments and higher density infill projects that are not always readily accepted by the existing residents. It is important to note that citizen involvement may not always result in planning or development decisions that benefit environmental quality or public health. If such outcomes are desired then it may be appropriate to explicitly consider environmental impact during the decision-making process.

When developers and city officials in Redding, CT were ready to develop the Gilbert and Bennett Mill, a 55 acre brownfield property, they went directly to citizens to determine a plan for the property. In a week-long public workshop, over 1,000 stakeholders from the town and from regional, state, and federal governments developed the design for the new neighborhood. A key component of the plan is a lively diversity of uses, including 416 homes in a wide variety of styles, 109,000 square feet of shops and restaurants, 113,000 square feet of office space, a performing arts center with a black box theater, and a health facility with a public pool. To honor the mill's heritage, 15 of the site's historic buildings

will be rehabilitated, and 21 new buildings will be designed in a historically sensitive manner.

Pedestrian-friendly design features such as trails, wide sidewalks, short blocks, and narrow streets encourage people to walk around the neighborhood. To give residents more transportation choices, the developer is building a commuter train station that will provide easy access to Manhattan. When the neighborhood is complete, the Town of Redding expects that it will create over 1,700 permanent jobs and provide the town with \$4.7 million in new, annual property tax revenues. This project received a National Award for Smart Growth Excellence in 2005.

Learn More

For an in depth discussion of the economic benefits of citizen participation in environmental decision making including planning decisions see “Public Involvement: How Active Participation in Environmental Issues and Decisions Makes Economic Sense and Broadens the Knowledge Base” http://cepm.louisville.edu/Pubs_WPapers/practiceguides/PG12.pdf

FINANCIAL INCENTIVES AND FINANCING OPTIONS

Financial incentives boost the profit margin of a development project by lowering the cost of investment and increasing returns. Since each development project poses its own unique characteristics, putting together an incentive package that meets developer needs is important to help move a project forward. Many of the incentives discussed here can be linked directly to planning efforts in that the incentive is only gained if development occurs within a particular district where revitalization is desired. Incentives can be geographically targeted and support “placemaking”. By designating a corridor, an opportunity zone, or a district and then associating incentives with those areas, area-wide redevelopment is more likely, and a sense of “place” can be supported. These incentives can also stand on their own, without a geographical designation but the designation helps direct growth. This is not an exhaustive list of possibilities, but those discussed here are used often to support smart growth initiatives and brownfields redevelopment. Incentives discussed include: tax credits, density bonuses or credits, tax increment financing, waiving development fees, split rate tax structures, and streamlining development approvals and permits.

Tax Credits and Abatements

Tax credits and abatements are increasingly used to finance brownfield clean-up and redevelopment. Developers value upfront incentives more than those realized at the end of a project. They also value certainty over uncertainty. These are two of the reasons that developers prefer credits and abatements to other financing tools. Tax credits and abatements are usually structured in ways that do not cause uncertainty in project returns and can be received upfront. Massachusetts, for instance, has a brownfields tax credit for 50% of the cost of clean up which simply requires the developer to complete a one page form and attach the state certificate of completion to receive the benefit. Tax abatements can be useful for those sites where there are back taxes or liens owed by previous owners that inflate the initial cost of the property. For example, an infill project in Webster, Massachusetts, JC Motors was cleaned and redeveloped as a Meineke Car Center. Six underground storage tanks and eight thousand tons of soil were removed, and 100% of the debris was recycled. The project received tax abatement for back taxes owed on the property and a tax credit for 50% of the cleanup cost making the project much more affordable (<http://www.investar.net/profile-webster.html>).

Historic Rehabilitation Tax Credit and Similar State Credits

Brownfields often contain structures that have historic value. As a result many brownfield projects use the Federal Historic Rehabilitation Tax Credit for project financing. This tax credit allows a dollar for dollar reduction in federal income tax liability, 20 percent of the cost of rehabilitating an historic building. The Federal preservation funds are distributed to states which have an appointed State Historic Preservation Officer and a statewide historic preservation program. States have begun to offer state level versions of the federal tax credit boosting the return on projects. This is a valuable tool for brownfields redevelopers and can offset costs associated with the assessment or remediation of the property.

In addition to Federal and State Tax credit programs; there are also alternative state and local tax policies, grants, and low-interest loans that can be used for historic preservation in conjunction with brownfield redevelopment.

The National Park Service has two historic preservation grants, the Historic Preservation Fund and the Save America’s Treasure Grants. These can be used for the purchase and restoration of historic properties and for preservation surveys. Grant money received from the

Federal Historic Preservation fund is administered through the states which set their own guidelines for the awards.

Restoring historic properties adds to a community’s overall attractiveness, sense of place, and can contribute to an area’s revitalization. Accommodating growth in existing historic properties can reduce development pressure on greenfield sites and open space. Historic Districts are attractive for a range of uses including residential, commercial, mixed-use, and in some cases light industry.

Learn More

For a detailed discussion of how to make Historic Preservation incentives and practices work for brownfields redevelopment see “Brownfields: Historic Preservation as a Redevelopment Option” http://cepm.louisville.edu/Pubs_WPapers/practiceguides/PG8.pdf.

Montgomery Park Business Center

2003 Phoenix Award winner, Montgomery Park Business Center located in Baltimore, Maryland’s West Side Empowerment Zone used both state and federal historic preservation tax credits in the re-development of the former Montgomery Ward building. The building was renovated using “green” building technologies such

as a green rooftop, low-energy heating, cooling and lighting systems and received LEED (Leadership in Energy and Environmental Design) certification.⁹ The business center is located within the Washington Village/Pigtown Neighborhood Planning Council Village Center. It will eventually contain among other uses, office, retail, restaurant, daycare, and meeting space. It employs about 1,800 people and is adjacent to a city park that includes part of 14 mile trail for hiking and biking that is under construction.

Density Bonuses or Credits

Density Bonuses allow developers to build more units in a project than permitted under zoning. Bonuses are often offered to encourage developers to provide public amenities, preserve open space, or build affordable housing. An assumption behind the density bonus is that the increase in units makes up for the additional development costs associated with providing a given public amenity.

Density bonuses can be used to specifically encourage development in existing communities, Massachusetts state legislation under Chapter 40R authorizes a one time density bonus payment to a municipality of \$3000 for each unit of new housing built within a designated smart growth zoning district. The idea behind the legislation is to encourage municipalities to support building housing in already-developed areas rather than on outlying greenfields. The state also passed Chapter 40S. This is companion legislation to 40R which compensates municipalities for the additional cost of educating children who move into the new districts adopted under Chapter 40R. This is one part of a broader effort to encourage smart growth development in Massachusetts.

Learn More

For more information on smart growth programs in Massachusetts (including 40S), see <http://www.mass.gov/?pageID=ocdhomepage&L=1&L0=Home&sid=Eocd.>

Density bonuses have also been used to encourage environmentally beneficial construction designs that are LEED certified. Arlington Virginia's Green Building Incentive Program uses the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) Green Building Rating System to evaluate whether or not a project can be granted density bonuses.¹⁰

While density bonuses have not been specifically linked to encouraging brownfields redevelopments, they could help offset the cost of environmental assessments or clean up. Bonuses could be packaged with a brownfields redevelopment project if the project provides a public amenity, affordable housing, protects open space, is an infill project, or engages in energy conservation and environmental protection in its design.

Tax Increment Financing (TIF)

TIFs have been used for years as a revitalization tool in economically distressed and abandoned areas where land values are low and investment has disappeared. TIFs are usually used to finance large scale, public projects. Under TIF's a municipality borrows funds to improve a property or adjacent infrastructure and pays back that amount with the increase in tax revenue that is the result of the improvements. TIF's support urban revitalization and brownfield redevelopment since TIF money can fund many tasks, public infrastructure improvements, land assembly, site preparation and environmental remediation that are necessary to successful brownfield redevelopment.

Minneapolis Mill District

Minneapolis' creation of the West Side Milling District TIF and Hazardous Substance sub-district plan authorized the use of funds to pay for acquisition, demolition, pollution remediation, rehabilitation of historic buildings, public improvements among other activities related to the redevelopment of the district. The project focused on new infill housing but also included a museum, and some office and commercial space. The authorization of the use of funds for diverse activities recognizes the need for comprehensive planning for large areas. The TIF was not limited to one type of activity and was thus flexible enough to support important aspects of each redevelopment project within the district. (Modification No. 2 to the West Side Milling District Tax Increment Finance Plan, April 18, 2003)



Malleable Iron Range Company

A TIF will rarely suffice on its own to finance a project and works best in combination with other financing tools. For example, the Malleable Iron Range Company located on 13.5 acres in the heart of down town Beaver Dam, Wisconsin, was redeveloped using several sources including monies from the EPA for emergency removal of contamination, county money spent for demolition, soil and water cleanup, Department of Commerce money from the Petroleum Environmental Cleanup Fund for Wisconsin, and money from a TIF the city created to fund infrastructure improvements for the site. For larger complicated sites it is necessary to combine brownfield specific redevelopment tools as well as more traditional economic development tools. [See (http://cepm.louisville.edu/Pubs_WPapers/practiceguides/PG10.pdf) for further discussion of this project.]

Waivers of Development Fees

Waiving development fees in certain cases can facilitate a project and make developers more comfortable taking on a higher risk proposal such as a brownfield. This tool can be used to direct development to desired growth areas (including brownfield and infill locations), and to support specific development types, such as compact, mixed use development. For example, the City of Austin, TX waives development fees (zoning, subdivision, and site plan application fees and water and wastewater capital recovery fees) for projects that occur within the Desired Development Zone (DDZ) and meets criteria under the city's Smart Growth Matrix (See <http://www.ci.austin.tx.us/smartgrowth/incentives.htm>).

Fees are reduced on a sliding scale depending on where a project is located within the DDZ. Desired Development Zone's include downtown, transit centers and corridors, and neighborhoods within the urban core. By waiving development fees the City of Austin is able to reduce development costs and further support redevelopment of brownfield properties within the DDZ. The City also waives development fees for projects that include 10% affordable housing under their S.M.A.R.T. Housing Initiative.

Split Rate Property Tax

Property owners and developers who renovate and improve property, or build on vacant land in existing neighborhoods often experience an increase in their property taxes. Property tax increases can deter

redevelopment of brownfield and infill properties. A split rate property tax separates the tax rate on buildings and land. It establishes a higher rate for land, and a lower rate for buildings. This is intended to discourage land speculation by increasing the tax on land values and encourage building improvements and redevelopment. . For brownfields where the contamination is in the building this tool allows developers to improve the value of the building without a huge increase in taxes as a result. A number of localities in Pennsylvania use the split rate property tax to support reinvestment and redevelopment. One of the first was Pittsburgh which adopted the split rate structure in 1913.¹¹ Analysis by the National Tax Journal showed that the split rate property tax contributed to increased commercial redevelopment activity in downtown Pittsburgh, despite a downturn in the steel industry.¹² Pittsburgh repealed the split rate property tax in 2001 because of faulty assessments that overvalued land. According to some this has reduced investment in Pittsburgh's urban core.

Brownfield Specific Financial Tools

There are additional financial tools that are being used to encourage brownfield redevelopment that should be considered as part of a larger smart growth package. These include but are not limited to revolving loan funds for environmental phase I and phase II assessments and clean ups, local environmental insurance pools, and state-level programs that offer letters of completion or some other certification that limits future legal liability. Importantly,

recent research has demonstrated that financial incentives offered upfront for environmental assessments and assistance with obtaining environmental insurance is more highly valued than the same amount of money that might be offered further down the line of the development project (See Wernstedt, Kris, Peter B. Meyer, and Anna Alberini. 2006: "Attracting Private Investment to Contaminated Properties: The Value of Public Interventions." *J. of Policy Analysis & Management*, 25(2). 347-369 and Wernstedt, Kris, Peter B. Meyer, Anna Alberini, and Lauren Heberle. 2006: "Incentives for Private Residential Brownfields Development in US Urban Areas." *Journal of Environmental Planning and Management*, 49(1). 101-119.).

The Clean Ohio Fund, Shifting growth to brownfield and infill development can help communities preserve open space, resource lands and other environmentally sensitive properties. Studies estimate that 4.5 acres of open space are saved for every acre of redeveloped brownfield.¹³ The connection between open space preservation and brownfield redevelopment is at the heart of the Clean Ohio Fund. Voters passed the Clean Ohio Fund in November of 2000 to preserve open space, environmentally sensitive areas and farmland, support outdoor activities, and fund the cleanup of polluted properties. The fund supports the Clean Ohio Green Space Conservation Program, Agricultural Easement Purchase Program, Trails Fund, and Revitalization Fund. These programs are conceptually linked through legislation but are financially and administratively distinct.

The Clean Ohio Revitalization Fund supports brownfields redevelopment and directs money to communities and counties that have been identified as distressed, labor surplus, or situational distressed. For more on the Clean Ohio Fund see www.clean.ohio.gov). In 2005, the Revitalization Fund supported 15 projects in 12 communities, including the University of Dayton riverfront redevelopment and Tech Town in downtown Dayton. The

riverfront project will combine open space and mixed office, retail, and housing uses. The riverfront property had been used for heavy manufacturing, a power plant, foundries, plating and onsite filling. Tech Town, located on the former site of the General Motors Harrison Radiator plant, will be a technology business park near downtown Dayton. This site was already under a Voluntary RCRA clean up and the current owners, GM, will now use the Revitalization Funds to abate asbestos, demolish some buildings, and renovate others.¹⁴

INSTITUTIONAL PRACTICES

A common complaint of developers about the obstacles to brownfields redevelopment and smart growth projects are about institutional practices that lead to long drawn out approval processes, complicated paths for receiving incentives, a dearth of information regarding the status of vacant or abandoned properties, and lack of support for marketing of properties. For instance, if the processes for granting a certificate of completion for clean up or approval is too lengthy and uncertain, developers will not be as likely to take on these types of projects. Or if the information regarding the ownership or environmental status of a property in question is too difficult to access, the developer may not be willing to invest the time to do so. When added to the challenge of environmental cleanups, issues such as time delay, lack of transparency in decision-making, and limited information can add difficulty to brownfield redevelopment. Land assembly also poses challenges to brownfield redevelopment. In many urban areas brownfields, vacant, abandoned or underutilized lots that are need of revitalization are small, not necessarily contiguous, and have absentee, deceased, or multiple owners. Thus, assembling enough land for redevelopment can be extremely complicated. This section highlights institutional practices that municipalities are using to add transparency and predictability to development decisions, increase site information and marketing of properties, and facilitate land assembly.

Expedite Approval Process

Phoenix, Arizona has an Infill Development Team that works to facilitate infill projects and shepherd them through the city's planning and development process. While the incentives offered through this program change with the budget, having an office devoted to helping infill and brownfield projects make their way through the development process increases a developer's willingness to take on those kinds of projects.¹⁵

Improve Public Access to Property Information

Emeryville, California

Officials in Emeryville, California created a One-Stop-Shop. This is a GIS-based web application that allows the public to obtain information about Emeryville's brownfields that includes information on the zoning, ownership, assessed real estate value, and available environmental parameters [<http://www.ci.emeryville.ca.us/econdev/osiris.html>]. This has the effect of reducing uncertainty in the early planning, investigatory stage of a project cutting down the time required for financial feasibility assessments. Developers do not want to invest a great deal of time and energy or

money into the exploratory upfront stage of any project. Having easily accessible information makes the initial exploratory stage much less risky for a developer, especially in dealing with brownfields where risk reduction is essential to the success of the project. This One-Stop-Shop is part of a broader strategy in Emeryville aimed at encouraging private investment and development by providing access to information, reducing uncertainty regarding liability and clean up standards, and a more streamlined development process and infrastructure improvements.

Chicago

Making information about properties and neighborhoods easily accessible removes some uncertainty in project preparation. In Chicago, the Center for Neighborhood Technology developed the Community Information Technology and Neighborhood Early Warning System. This is an online database which allows users to access information about specific properties and social and economic data about neighborhoods [<http://www.news-chicago.org>]. More and more people are moving toward making environmental assessment information available to the public thereby removing some of the un-

knowns of potential development early in the process. Issues of privacy remain however, and many municipalities are more likely to only release information on publicly held properties. Some do not see the benefit of identifying a property as a "brownfield" in a public manner and are worried about stigmatizing privately held properties. This is an issue that needs to be resolved at the local level where trust to resolve contamination issues can be built among city agencies, private developers, and the general public.

Assist in Marketing Community Wide Development

The Michigan Suburbs Alliance (MSA) is a coalition of public and private stakeholders who are working to increase development activity in the 1st tier suburbs surrounding Detroit. In June of 2002, MSA launched the Redevelopment Ready Communities (RRC) certification program (www.Redevopmentready.com). This program helps communities develop brownfields and other previously developed properties by providing technical assistance to localities that want to adopt best practices in redevelopment. Communities that implement best practices are certified as Redevelopment

Ready. Certification is a marketing tool that lets a developer know that a community has eliminated regulatory and institutional barriers to redevelopment. MSA's analysis of the existing barriers to redevelopment shows that certification will encourage developers to redevelop properties in certified communities. With MSA's help, six communities in metro Detroit are now redevelopment ready and experiencing new development activity.

In certifying communities, MSA looks for best practices in six areas, they are:

Community Visioning and Education—cities are encouraged to adopt proactive and aggressive public participation strategies focusing on early visioning and engagement in determining the need for redevelopment; updated master plans are key to engaging developers who clamor for consistency and clarity in the process, as well as helping citizens feel secure that the character of their community will be protected.

Continuing Education for Public Officials – cities establish training plans and set educational requirements for key staff members and elected and appointed officials.

Tools for Redevelopment – a clear community commitment to the redevelopment process and appropriate use of and access to financial redevelopment tools is encouraged.

Development Regulations – existing development regulations, including zoning ordinances, often prevent communities from executing innovative redevelopment plans that encourage mixed uses and other modern types of development; RRC communities are encouraged to clarify the decision-making process and diversify their zoning practices.

Marketing of Redevelopment Sites – cities must engage community leaders from a variety of sectors in promoting redevelopment opportunities, and they must make information on priority redevelopment sites easily available.

Redevelopment Plan Review Process – building from the maxim “time is money,” cities are urged to make their site-plan review processes more efficient; through fewer public hearings (mitigated by early public participation) and concurrent departmental review, communities can speed up the redevelopment process without compromising community values.

Land Assembly

Land banks are public entities that acquire, hold and manage vacant, abandoned, and tax delinquent property. Banks usually acquire property through foreclosure and tend to hold on to the property until a developer can be found or they develop the property themselves.

The ability of banks to hold on to property makes it possible for them to assemble land. The Genesee County Land Bank Authority in Michigan is a model. Since 2002, the GCLBA has acquired title to 4400 parcels of land. They recently launched a Brownfield Redevelopment Plan that finances future clean-up activity from tax revenue generated by its existing land holdings. The success of the Genesee County Land Bank has been helped by Michigan's Land Bank law that makes it possible for county tax foreclosure of vacant properties within two years and gives land banks many of the same tools as private development corporations. (<http://www.thelandbank.org/default.>)

CONCLUSION

The strategies and tools discussed in this report are meant to provide examples of creative development of policies that encourage brownfield redevelopment and smart growth outcomes. These tools are flexible and can be combined in various ways depending upon the needs and desires of a community, and can create a climate in which smart growth principles come to be expected and brownfields redevelopment is supported.

We have discussed a wide variety of communities. All have unique situations and histories. However, each has been able to creatively implement practices and policies that have encouraged brownfield redevelopment to benefit from smart growth policies, thus strengthening their path to a strong smart growth program. The cases we list here are not the only instances where smart growth tools have been used to support brownfields redevelopment. These examples highlight how smart growth can, and should, be connected to community revitalization generally and to brownfields redevelopment more specifically. Several lessons emerge from these case examples. Municipalities

need to work with regional and state governments to find ways to support planning initiatives that direct growth to already developed areas. Incentives matter. Financial incentives and regulatory changes, such as reduced parking or allowing mixed use, higher density development can make a developer more willing to redevelop brownfields. Institutional practices that support a fair, timely, and predictable decision-making process can create greater citizen support for brownfield redevelopment and developer interest in it. Community planning, economic development incentives, and smart organizational practices go a long way to setting the stage for connecting brownfields and smart growth initiatives. Brownfields are an important part of this equation. Brownfield redevelopment can make it more likely that a community will succeed in their efforts to achieve smart growth principles, meant to direct growth direct growth, save open space, and protect the environment. As communities adopt the smart growth strategies and tools such as the examples we discuss here, more and more brownfields will become attractive to developers and will be returned to productive use.

ENDNOTES

1. *Getting to Smart Growth: 100 Policies for Implementation*. Pg 52.
2. R. Simons, 2006. "Brownfields Supply and Demand Analysis for Selected Great Lakes Cities." Cleveland, Ohio: Department of Planning and Development, Cleveland State University, prepared for U.S. Environmental Protection Agency.
3. Price Waterhouse Coopers, 2002, 2004. *Emerging Trends in Real Estate*.
4. Transportation Research Board, 2000, 2002. *Cost of Sprawl*.
5. Eppli and Tu, 1999. *Valuing The New Urbanism: The Impact of the New Urbanism On Prices of Single-Family Homes*, ULI—the Urban Land Institute, Washington, DC.
6. Syal, Shay, and Supanich-Goldner 2001 "Streamlining Building Rehabilitation Codes to Encourage Revitalization" *Housing Facts and Findings*. Fannie Mae Foundation. V3, Iss. 2.
7. Porter, D. 1996. *Profiles in Growth Management*. Urban Land Institute. Washington, D.C. and Ambrose, B. and Gonas, J. 2003. "Urban Growth Controls and Affordable Housing: The Case of Lexington, Kentucky." UK Center for Real Estate Studies, Gatton College of Business and Economics, University of Kentucky, Lexington, KY.
8. Song, Y. and Knaap, G. 2004. "Measuring Urban Form: Is Portland Winning the War on Sprawl?" *Journal of the American Planning Association*. Vol 70, No. 2. Chicago, IL.
9. <http://www.montgomerypark.com/overview.html>.
10. <http://www.arlingtonva.us/Departments/EnvironmentalServices/epo/EnvironmentalServicesEpoIncentiveProgram.aspx>.
11. Schachtel, Glazer and Bell, 2002. *Alternative Revenue Sources and Structures for Baltimore City*. Johns Hopkins Institute for Policy Studies August 2002 <http://www.beefbaltimore.org/revenue.html>.
12. Oates and Schwab, 1997. "The Impact of Urban Land Taxation: The Pittsburgh Experience." *National Tax Journal*. V50, no. 1, pp. 01-21.
13. Deason, Sherck, and Carroll. 2001. "Public Policies and Private Decisions Affecting the Redevelopment of Brownfields: An Analysis of Critical Factors, Relative Weights and Areal Differentials" available at <http://www.gwu.edu/%7Eeem/Brownfields/index.htm>.
14. http://www.ci.dayton.oh.us/news/news_data/redevelopmentprojectgrants12-14-05.asp and http://www.udnews.org/2005/12/riverfront_tran.html.
15. <http://www.policylink.org/EDTK/Infill/#3> and <http://www.ci.phoenix.az.us/BUSINESS/infillpgm.html>

ADDITIONAL RESOURCES

This is Smart Growth

This publication illustrates and explains smart growth concepts and outcomes. The publication features 40 places around the country, from cities to suburbs to small towns to rural communities, where good development has improved residents' quality of life. Available on-line at: http://www.smartgrowth.org/pdf/this_is_smart_growth.pdf or <http://www.smartgrowth.org/library/articles.asp?art=2367>.

Getting to Smart Growth: 100

Policies for Implementation

The publication serves as a road map for states and communities that have recognized the need for smart growth, but are unclear on how to achieve it. "Getting to Smart Growth" provides ten policy options to achieve each of the ten Smart Growth Principles. These policies are supported with "Practice Tips" which offer additional resources or brief case studies of communities that have applied the approach to achieve smart growth. Available on-line at: http://www.epa.gov/smartgrowth/getting_to_sg2.htm.

Getting to Smart Growth: 100 More

Policies for Implementation

Volume 2 of this ongoing series by ICMA and the Smart Growth Network describes the concrete techniques of putting the ten smart growth principles into practice. Available on-line at: http://www.epa.gov/smartgrowth/getting_to_sg2.htm.

Strategies for Successful Infill Development

This publication defines infill development and discusses how infill development can help communities expand housing and transportation choice and improve quality of life and the environment. Detailed case studies are included and an action plan for encouraging infill is presented. Available on-line at: <http://www.nemw.org/infillbook.htm>.

Creating Great Neighborhoods: Density in Your Community

This publication highlights nine community led efforts to create vibrant neighborhoods through density; discusses the connections between smart growth and density; and introduces design principles to ensure that density becomes a community asset. Available on-line, along with other density

products from the National Association of Realtors, at: <http://www.realtor.org/sg3.nsf/pages/commdesigndensity?OpenDocument>.

Affordable Housing and Smart Growth: Making The Connection

Successful examples of how smart growth techniques have helped communities provide affordable housing for residents and expand housing choices. Available on-line at: <http://www.epa.gov/smartgrowth/topics/ah.htm>.

A Policymaker's Guide to Infill Development

This publication answers two frequently asked questions: "Why build in town?" and "What can local government do to encourage infill development?" It includes strategies for infill, a handy checklist for creating infill development and four full pages of useful bibliographical resources. Ordering information at: <http://www2.lgc.org/bookstore/detail.cfm?itemId=53>.

Unlocking Brownfields: Keys to Community Revitalization

More than 50 profiles of successful brownfields projects and programs, five critical brownfields messages which document the evolution of brownfields success in America, and the "10 Keys to Brownfields Revitalization." Available on-line <http://www.nalgep.org/ewebeditpro/items/O93F4460.pdf#search=%22unlocking%20brownfield%20keys%20to%20community%20revitalization%20%22>.

Center for Environmental Policy and Management Practice Guides

This series of practice guides address issues faced by municipalities, states, developers and communities in redeveloping brownfields, implementing smart growth, encouraging public participation, energy conservation and land preservation. Available at <http://cepm.louisville.edu/publications/publications.htm>.

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