Linking
Brownfields Redevelopment
and
Greenfields Protection
for Sustainable Development

Great Lakes Commission
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Foreword

The Great Lakes are the largest system of fresh surface water on earth. They bring to mind breathtaking vistas, magnificent beaches and plentiful fishing. The Great Lakes also support prominent cities and places of commerce along their shores and anchor a region of agricultural productivity and economic opportunity.

These majestic bodies of water and the land portion of the Great Lakes ecosystem that surrounds them are affected by the continuing growth of metropolitan areas and the virtually uncontrolled sprawl of low-density residential areas. The presence of brownfields and the loss of productive agricultural lands and open space rank high among the detrimental consequences of these trends. Many central city areas have deteriorated, leaving idled contaminated sites and related socio-economic problems in their wake. Meanwhile, new development migrates to outlying greenfields, with commensurate loss of agricultural lands and open space. In this report prepared by the Great Lakes Commission, the National Wildlife Federation and the Council of Great Lakes Industries, we illustrate opportunities to address these trends in an integrated fashion that can stimulate productive change.

With the support of the C.S. Mott Foundation, the primary goal of our effort has been to promote and link brownfields redevelopment and greenfields protection efforts in the interest of advancing sustainable development. We are pleased to add our research findings to the body of work that supports the recommendations from the President's

Acknowledgments

This report was prepared by Victoria Pebbles of the Great Lakes Commission, with major contributions from Steve Thorp, also on the Great Lakes Commission staff. Rita Straith was responsible for report design and layout with editing by Christine Manninen and Kirk Haverkamp. Conduct of local workshops that contributed to findings and strategic actions relating to community involvement in brownfields decisionmaking was headed by staff at the National Wildlife Federation-Great Lakes Natural Resource Center. George Kuper of the Council of Great Lakes Industries provided feedback from a private sector perspective. The Bridges Project Advisory Committee—with representation from all Great Lakes states, the provinces of Ontario and Québec, selected local governments, the private sector and non-profit interests—was critical in lending their professional expertise in review and comment on the material contained in this report (a list of Advisory Committee members is provided at the end of this report). More than two dozen additional experts from around the Great Lakes region in the areas of brownfields redevelopment, greenfields protection, planning and land use also made many valuable contributions to this report. Financial support was provided by the Charles Stewart Mott Foundation.

Great Lakes Commission

The Great Lakes Commission, chaired by Nathaniel E. Robinson (Wisconsin), is a nonpartisan, binational compact agency created by state and U.S. federal law and dedicated to promoting a strong economy, healthy environment and high quality of life for the Great Lakes-St. Lawrence region and its residents. The Commission consists of state legislators, agency officials and governors' appointees from its eight member states. Associate membership for Ontario and Québec was established through the signing of a "Declaration of Partnership." The Commission maintains a formal Observer program involving U.S. and Canadian federal agencies, tribal authorities, binational agencies and other regional interests. The Commission offices are located in Ann Arbor, Michigan.

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tion information (www.glc.org/green) and an online clearinghouse for brownfields information (www.glc.org/robin);

2. Research and analysis of Great Lakes brownfields cleanup and redevelopment policies;
3. Research and analysis of Great Lakes greenfields protection policies;
4. Conduct of two local workshops to garner input into development of community-level recommendations for improving community involvement in brownfields decisionmaking; and
5. Development of strategic actions for linking brownfields redevelopment and greenfields protection for adoption/implementation by the public, private and non-profit sectors.

This report is the culmination of items 2-5. Section I offers an overview of development and farmland conversion trends, and provides a context for the remaining sections of the report

Section II provides an overview of brownfields redevelopment issues and barriers and describes Great Lakes state and provincial brownfields cleanup and redevelopment policies to overcome those barriers.

Section III offers a perspective on the importance of community involvement in brownfields decisionmaking. Summaries and findings of two local workshops held as part of the project are provided. This section also summarizes Great Lakes state policies related to public participation in brownfields decisionmaking.

Section IV provides an overview of greenfields issues and barriers to greenfields protection with a focus on agricultural lands. This section also describes Great Lakes state and provincial agricultural land protection policies as well as private sector practices for protecting greenfields.

Section V, entitled New Policy Directions, provides an analysis of selected gaps and weaknesses in existing state and provincial brownfields and greenfields policies. Brownfields and greenfields policies are evolving at a rapid pace in response to other policies as well as economic development and land use trends. This section is not intended to be comprehensive, but rather a starting point for government leaders and policymakers to evaluate brownfields and greenfields policies and approaches for potential improvement. Section V also provides a context for many of the strategic actions presented in Section VI.

A special section presents a series of 32 strategic actions developed by project partners to promote and link brownfields redevelopment and greenfields protection. Some strategic actions are developed specifically for linking brownfields and greenfields, while others are specific to brownfields redevelopment or greenfields protection. These strategic actions represent the results of more than two years of research and community outreach and, in many ways, are the mainstay of this report. Their significance is highlighted physically by pages that are colored at the edges for easy identification. Each strategic action is accompanied by a “rationale” and, where appropriate, examples of similar policies or programs in the Great Lakes region. Great Lakes public, private and non-profit leaders are urged to carefully review and consider each of the strategic actions and adopt and implement those that reverse damaging land use trends and enhance and complement existing efforts to promote sustainability.

I. Development and Farmland Conversion in the Great Lakes Region

A. Overview

On a night flight from Chicago to Detroit the plane gains altitude over the city, an expanse of lights glimmering to the western horizon. The rectilinear grid of lights is interwoven with rivers of light on diagonal and sinuous routes carrying heavy traffic. From the plane the Lake Michigan shore provides a dramatic line of contrast between development and the area's geographic and natural resource centerpiece. As the flight crosses into the state of Michigan, the lights of development reappear. The higher altitude affords a different perspective. Small towns are visible and separate whereas the larger cities with their radiating highway connections reveal more contiguity with nearby communities. City lights show clearly the pattern of development and urbanization that is occurring.

What we see in the heart of the Great Lakes region is not unlike development elsewhere in the country. The areal expansion of urban areas is the hallmark of postwar America. The Natural Resources Conservation Service's National Resources Inventory (NRI) has revealed that from 1982 to 1997 developed land in the United States increased by 25 million acres. Table 1 shows that the nonfederal developed land in the eight Great Lakes states increased by 5,173,100 acres from 1982 to 1997, a 27 percent increase. Much of this development is attributable to residential development in suburbs fueled by migration from rural places and central cities. Inner ring suburbs have also gotten in on the act after nurturing a generation or two and then sending residents to "greener" pastures on the urbanizing edge. An increasing rate of household formation along with larger lots and houses have enhanced the residential land rush. Much has been written about government policies such as highway funding and social/cultural factors, which have encouraged and abetted this trend. Suburban areas now account for half of the U.S. population and much of the metropolitan employment base is there too. Tract subdivisions have been the traditional model but more open, less settled areas have seen an increasing share of homes on larger acreages. The far ex-urban fringe, whether isolated rural retreats or small communities, is also in the picture, but barely, with a balance between commuting and retirement/telecommuting. Infill housing in built-up areas, including apartments and condos, has not been that significant to dampen the propagating waves of land consumption on the outside edge.

Table 1
Developed Nonfederal Land between 1982-1997
(1,000 Acres)

	1982	1997	1982-1997 Net Gain
Illinois	2,688.6	3,180.9	491.3
Indiana	1,834.8	2,260.4	425.6
Michigan	1,725.3	3,545.5	820.2
Minnesota	1,719.9	2,185.5	465.2
New York	2,635.8	3,183.6	547.8
Ohio	1,782.8	3,611.3	828.5
Pennsylvania	2,818.8	3983.2	1,164.4
Wisconsin	1,989.2	2,417.9	428.7
Great Lakes States Total	**19,195.2**	**24,368.3**	**5,173.1**
U.S. Total	**73,245.8**	**98,251.7**	**25,005.9**

Source: National Resources Inventory (revised December 2000), Natural Resources Conservation Service.

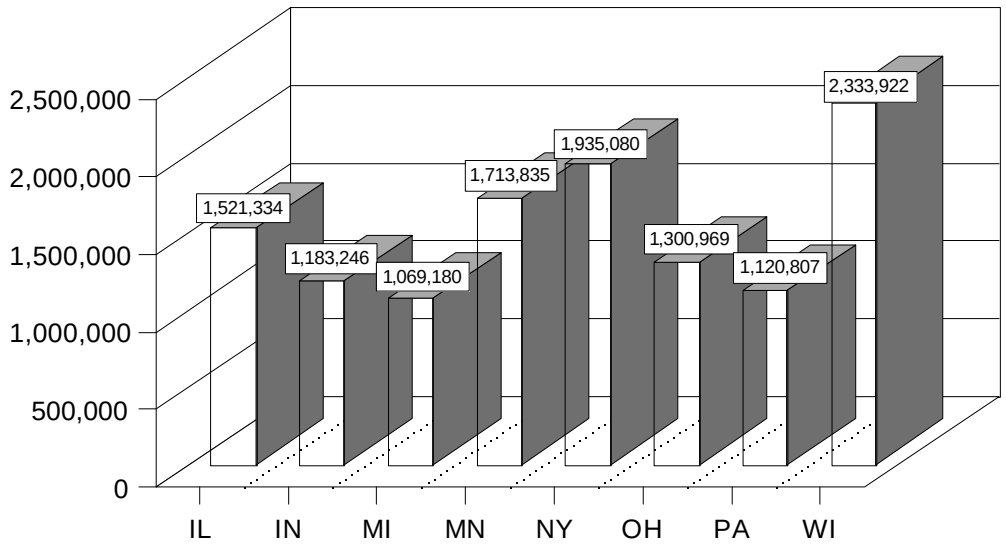
Development is not just homes; it is everything else from factories, stores, roads, schools, quarries and a hundred other manifestations of human activities. Houses and newer development usually do go hand-in-hand but not often in close proximity because of zoning codes. In these suburban settlements markets are created, building a web of interaction among residents, businesses and employees. All forms of low-density sprawl development have consequences, particularly for open space and infrastructure costs. A myriad of negative impacts ranging from increasing surface imperviousness to the effectiveness of transit, have been studied in the growing smart growth debate. Though one point gains wide agreement: once open space is built upon, development, as a general land use, is very difficult to dislodge. For all practical purposes, it becomes a permanent landscape feature. The same holds true for central cities and their first ring suburbs. These places in the Great Lakes region have experienced many changes in their industrial, commercial and residential histories. These places are continuing to evolve, but they will always remain urban.

B. Metropolitan Population Changes

Between 1990 and 2000 the eight Great Lakes states gained 5,075,888 in population. This represented a 6.6 percent increase or less than half of the U.S. increase of 13.2 percent. The range among the Great Lakes states

older, built-up areas is accompanied by escalating infrastructure investment requirements for newer areas. The encroachment on agricultural lands and natural areas has its own set of detrimental consequences. Farmland and open space preservation issues have generated widespread public interest. State and local governments are responding with tailored policies, but the problem is large and continues to grow. In many of these places, good cropland is being replaced–taken out of production for at least the foreseeable future, if not forever.

Topography, climate and good soils have combined to make the Great Lakes region the most diverse and productive rain-fed agricultural area in the country. The microclimates and the lay of the land near the Great Lakes have bestowed ideal growing conditions for fruits and other specialty crops. For example, the Great Lakes basin accounts for about a quarter of the U.S. apple crop and the area around western Lake Erie is the second largest concentration of tomato growing and processing north of Mexico. The great American Corn Belt, legendary in its monoculture proportions, occupies a broad swath through the region west of Pennsylvania. Dairy is another significant sector with “around-the-clock” operations and vulnerability to changing markets. Even with all this agricultural activity, it is important to realize that a range of factors are changing the land



For the Great Lakes basin, where 35 percent of land area has an agricultural land use, the conversion of farmland also reveals a disparate pattern. Some jurisdictions have relatively small basin land areas (e.g., Illinois) and others have less farmland in their portion of the basin (e.g., Minnesota). U.S. basin farmland loss amounted to 4,053,015 acres from 1982-1997. (See Figure 2.) This represented nearly 49 percent of the total farmland loss for the eight states.

Similar to the region, the rate of loss in the basin for the 1992-97 period slowed from the previous 10 years, with only 16 percent of the total loss for the later period. For the entire province of Ontario, the total loss for 1991 to 1996 was nearly 375,600 acres. This compares to a loss of 1.12 million acres in the previous 10 years just for its basin area. Since 1981, more than 12.6 million acres of farmland were converted in all Great Lakes jurisdictions, including Ontario. This amount is greater than the size of lakes Erie and Ontario combined. In the Great Lakes region, counties with growing urban populations or those near expanding metropolitan areas have seen the greatest loss of farmland. In fact, such counties account for the greatest amount of farmland change, most of which is due to conversion for development purposes. For example, in Northeastern Illinois,

a ten-county area (including Chicago) had a net loss of 108,536 acres of farmland between 1992 and 1997. One of these counties, Kane, actualy had an increase in farmland as did some other Illinois counties (see case study on p. 57). The net loss of farmland for the entire state was 45,560 acres, clearly indicating the pressure on farmland in the Chicago region.

Table 2 shows population and farmland changes for selected metropolitan areas in the Great Lakes states. The data is for the last census periods for which data is available. Those metropolitan areas that are growing had a proportionate increase in farmland loss. In two places, Akron, Ohio, and Buffalo-Niagara Falls, N.Y., farmland was lost even though the population grew little or declined. It is apparent that development pressures on farmland can occur irrespective of significant population growth. The spreading out of the urban landscape has many causes, and solutions to this inefficient and environmentally damaging growth pattern will need to be equally varied.

Table 2
Farmland Changes and Population Growth in Selected Great Lakes Metropolitan Areas

Metropolitan Area	Net Farmland Loss 1992-1997 (acres)	Percentage Population Growth 1990-2000
Chicago-Gary-Kenosha, IL-IN-WI (thirteen counties)	119,963	11.1
Indianapolis, IN (nine counties)	71,945	[redacted]
Ann Arbor, MI (three counties)	29,007	[redacted]
Grand Rapids, MI (four counties)	19,946	16.1
Minneapolis-St. Paul, MN (thirteen counties including two in Wisconsin)	100,653	[redacted]
Buffalo-Niagara Falls, NY (two counties)	10,584	[redacted]
Akron, OH (two counties)	10,693	5.7

Source: Census of Agriculture (1997), Population Census (2000), U.S. Bureau of Census

II. Brownfields in the Great Lakes Region

A. Overview

The relationship of brownfields to the Great Lakes themselves is significant. Many Great Lakes cities grew up around manufacturing industries that established operations on or near the lakes. As the economy shifted after World War II, many firms and businesses left the central city for the suburbs. Older and less efficient operations closed or relocated away from the waterfront, leaving brownfields in their wake.

Brownfields present particular challenges and opportunities for the Great Lakes region. In addition to the financial, administrative and legal challenges faced by all brownfields, Great Lakes brownfields face an additional hurdle by virtue of their sheer scale. An extensive and historic industrial legacy has left the Great Lakes region with a proportionately greater share of brownfields compared to other regions in North America.

Brownfields:

Abandoned, idled or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

~U.S. EPA

Research conducted by the Urban Land Institute shows brownfields as a percentage of total land for several Great Lakes cities. (Figure 3). These figures provide a good indication of the extent of the brownfields problem. Best estimates indicate that the Great Lakes region contains tens of thousands of brownfields. Whichever way you look at it, percentage of land or estimated number of sites, evidence suggests that brownfields have a major presence in the Great Lakes region. Brownfields are an indicator of urban disinvestment and decay. Beyond cleaning up polluted areas, brownfields redevelopment is critical to revitalizing urban areas in the region and ameliorating associated socio-economic problems.

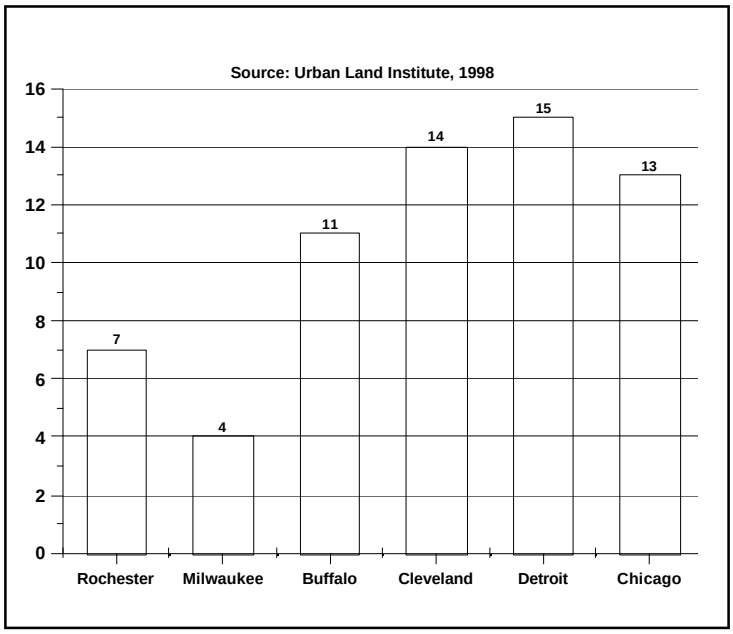


Figure 3

B. Barriers in Brief

Much has been written about the obstacles to brownfields redevelopment. Beyond the broader socio-economic issues of urban disinvestment, poor schools and crime, most of the technical barriers to brownfields redevelopment can be translated into

Costs of Brownfields Redevelopment

Brownfields-Specific

- *site assessment*
- *demolition*
- *cleanup*
- *land assembly*

General Development

- *property acquisition (lower for brownfields)*
- *legal; engineering; architectural fees*
- *financing charges*
- *consultant fees*
- *construction*
- *utility installation/extension*
- *insurance*
- *local land use zoning/permitting*

higher costs. The costs of brownfields redevelopment are higher relative to a comparable development project on a greenfields site because of the additional steps and associated time necessary to redevelop brownfields, including site assessments/investigations, demolition, cleanup, land assembly and liability management. Each of these steps can mean additional costs on top of those that are generally incurred for standard development projects. Though the types of costs can vary widely from project to project, the bottom line for brownfields projects is almost always costlier.

1. Getting the Land

Land acquisition is a cost consideration for any type of development project. Costs for acquiring a brownfields property are usually lower than a greenfields site because of its real or perceived contamination and other factors that reduce property values. Conversely, greenfield properties are usually more expensive to acquire than brownfields, but general development costs of greenfields are usually significantly lower, thus offsetting the higher initial land prices.

2. Preparing the Site for Redevelopment: Site Assessments, Demolition, Land Assembly, Cleanup

All brownfields must be assessed to determine whether the property needs to be cleaned up before it can be reused. A site assessment generally involves two parts: Phase I and Phase II. A Phase I assessment can include, but is not limited to, reviewing records, interviewing persons and conducting physical inspections of the property in question. A Phase II assessment is conducted to physically confirm the presence or absence of environmental contamination at a site. The Phase II environmental assessment should include, but is not limited to, field sampling of media, laboratory analysis of samples and visual confirmation of environmental contamination at the property. It is not meant to determine the nature and extent of contamination. If a Phase II confirms the presence of contamination, further sampling and analysis is conducted to determine the degree and extent of contamination. This is sometimes called a site investigation, a Phase III site assessment or a Baseline Environmental Assessment, which may also include recommendations for cleanup and can be very costly if contamination is serious or widespread. Frequently, there are also the costs of demolishing old structures on the property. And, of course, there are costs for actual cleanup.

A common, but often underestimated, cost is that of assembling the land to meet the developer's needs. Years ago, much manufacturing was done in multi-storied buildings and required less land. Today's more spread out manufacturing operations require larger parcels. Many urban brownfields are not large enough to meet these needs. Land must be acquired and assembled. Costs associated with this task can escalate quickly depending on how many parcels need to be assembled and the status of their ownership. For example, more legal and consultant services are likely needed if a parcel has several owners, or if the issue of who actually owns the parcel is unclear or if any of the owners are unwilling to sell.

3. Special Expertise and Insurance

Attorneys, consultants and insurance costs can come into play at different stages of a greenfield or brownfield project, but are frequently much higher for brownfields simply because there are more factors to consider when developing on a brownfields site. Legal fees are higher, for example, to clarify and manage contamination liability or resolve multiple ownership issues. Environmental consultant fees are greater to address cleanup issues.

As with other sectors of society where risk is involved, an array of insurance products have become available to transfer the risk of brownfields cleanup and/or redevelopment. In addition to insurance

ments. Eight of the nine jurisdictions that provide cleanup financing provide grants for site assessment or characterization. Some programs provide assistance for a range of cleanup-related activities. For example, Wisconsin's site assessment grant established in the 1999-01 biennial budget provides financing to local units of government, tribes and community development/redevelopment authorities for site investigation, removal of abandoned containers and storage tanks, and demolition. Ohio is the only Great Lakes state that does not provide grants for site assessment/characterization, though it does offer loan programs that can assist with this activity. No state provides cleanup grants for responsible parties, though responsible parties who engage in cleanup can receive funding through some state loan programs (e.g., Ohio). Responsible parties in Québec may receive grant money for cleanup if it is part of a specific redevelopment project and the responsible party is not under investigation or the subject of related legal actions. Michigan, Minnesota, New York, Pennsylvania, Wisconsin and Québec also provide grants for actual cleanup.

Table 4
Cleanup-Related Grants and Loans

	IL	IN	MI	MN	NY	OH	ON	PA	QC	WI
Assessment	X	X	X	X	X	X		X	X	X
Cleanup	X	X	X	X	X	X		X	X	X
[redacted]										X

Great Lakes Commission, 2000

b. Redevelopment-Related Grants and Loans

All of the Great Lakes states provide grants or loans above and beyond cleanup to deal with the various associated aspects of redevelopment such as job creation/job training, infrastructure development, construction costs and land assembly. All Great Lakes states provide some type of financing for construction, renovation or expansion of buildings on brownfields properties. Some of these programs are brownfields-specific. For example, Ohio's Brownfields Grant Assistance program provides funding to non-profits to help cover land acquisition, infrastructure improvement and building renovation. Costs associated with brownfields redevelopment are part of broader state economic or business development programs from which brownfields can benefit. Tables 4 and 5 indicate types of activities for which state/provincial grants and loans are available. Some programs, such as Indiana's new "forgivable brownfields loans," offer flexibility to cover a variety of activities associated with brownfields cleanup and redevelopment.

Tax Increment Financing (TIF) is unlike other tax benefits in that the benefit isn't attributable to a reduction in taxes for a particular project. Instead, TIFs provide an institutional framework for financing brownfields projects in a given area. When a TIF district is created, the amount of revenue that a taxing body receives from that area is frozen at a set level for a specified number of years. Monies derived from the increase in incremental tax revenue due to new construction or investments in the district go to a separate TIF authority that manages the money and disburses it for specific purposes (e.g., brownfields cleanup and redevelopment). Illinois, Michigan, Minnesota, Pennsylvania and Wisconsin have TIF programs that can apply to brownfields. Wisconsin and Michigan are the only states that tie their TIF program directly to financing environmental cleanup/redevelopment (brownfields). In Michigan, tax increment financing for brownfields occurs through locally established brownfield redevelopment authorities, which operate like TIF authorities but are specific to brownfields. Michigan's brownfields redevelopment authorities were given expanded authority in 2000 to capture taxes over a broader area and cover associated non-remediation activities such as site preparation and infrastructure improvements. In Wisconsin, TIF programs (there are two) are similar in that municipalities create TIF districts and plans designed to finance environmental remediation and public improvements. The Wisconsin Environmental Remediation TIF (ERTIF) was made more brownfields-friendly in the 1999-2000 Wisconsin budget when it was expanded to cover costs that are typically associated with brownfields redevelopment, such as land acquisition and demolition, and by allowing local governments to use ERTIF money to clean up brownfields even when they do not own the property—a common obstacle to brownfields cleanup. The Illinois and Pennsylvania TIF programs are generic for locally established TIF districts, which may or may not be used to finance brownfields cleanup/redevelopment. Minnesota's TIF program is somewhat of a hybrid—TIF districts can be either designated redevelopment areas or "hazardous waste contamination subdistricts."

4. Improving Capital Access

Several Great Lakes states (Illinois, Michigan, New York and Ohio) have programs to indirectly support redevelopment financing through loan guarantees, loan participation or credit enhancement, which makes it easier for private lending institutions to provide a larger loan or type of loan where they might not otherwise have. Also, most private lending institutions in the region have developed staff expertise in evaluating loans for brownfields redevelopment. Such staff expertise enhances the lending community's ability to process brownfields loans in a timely manner, so more loans can be given for brownfields redevelopment. The combination of good economic conditions and improvement of state brownfields programs to clarify liability and cleanup standards and provide incentives for redevelopment has created strong incentives within the lending community to provide loans for brownfields. The result today is a borrower's market where banks are competing with one another to provide loans to qualified borrowers for brownfields redevelopment.

5. Technical Assistance

Technical assistance for brownfields redevelopment exists throughout the binational Great Lakes region. The most common types of technical assistance target a range of needs, including on-site environmental assessments, cleanup guidance, site selection, and information about innovative technologies. All of the Great Lakes states and provinces provide assistance in the form of publications or online guidance for cleanup and assessments. In Indiana, technical assistance for site selection includes state-sponsored community meetings and education outreach.

Free on-site environmental assessments (Phase I and Phase II) are the next most common form of technical assistance and are offered by Illinois, Indiana, Michigan, Minnesota, Ohio, Pennsylvania and Wisconsin. Who is eligible for such free assessments and how much money is available varies from state to state.

much frustration for urban residents. Without input from neighborhood residents, poor assumptions are made about appropriate redevelopment activities and can foreshadow outcomes that are not likely to achieve

In **Ohio**, public participation in the state Voluntary Action Program (VAP) is primarily in the form of a public notice published in the local newspaper to alert residents that a "covenant not to sue" has been issued or denied for a specific piece of property. The covenant not to sue is a document that certifies state approval of a completed cleanup. Public notice also is required when the Ohio Environmental Protection Agency issues a variance from state cleanup standards. There is no such requirement to inform residents of cleanup plans prior to completion. The exception is in the case of Urban Setting Designation (USD), which pertains to a larger geographic zone, where the VAP has additional public participation requirements. A USD recognizes that cleaning up the groundwater to drinking water standards is not necessary in urban areas where drinking water is provided through community water systems. Before the Ohio EPA approves a USD, public meetings must be held to provide residents with information about the designation. Meetings are usually held four to six weeks after a USD request has been received and are announced through Ohio EPA news releases to the media and known citizen groups in the area.

In **Pennsylvania**, public participation in brownfields activities is generally defined by the requirements of the state Hazardous Sites Cleanup Act which authorizes the Department of Environmental Protection to investigate and assess potential releases of hazardous substances. The person/party conducting the cleanup must notify the public of the cleanup activity as well as the background and statewide health standards for brownfields cleanups. Both the notice of intent to remediate the site and the notice of submission of the final report must be submitted to the affected municipality. A summary of the notice of intent and notice of submission of the final report must be published in a general circulation newspaper serving the area. If a brownfield is being cleaned up to a site-specific standard that is less stringent than the statewide health standards, more extensive public participation is required. In those instances, the notice of intent to remediate the site is submitted to the municipality and a summary of the notice is published in a local newspaper, followed by a 30-day public and municipal comment period. If requested by the municipality, the person or party responsible for the cleanup must develop and implement a public involvement plan, which includes measures to involve the public in the development and review of the remedial investigation report, risk assessment report, cleanup plan and final report.

Wisconsin relies primarily on public notification as its public participation strategy. Public notice is required for all state funded projects. For evaluation or remediation of facilities, the notice must contain a description of the contamination. The notice must include a description of the type, volume and characteristics of contamination, as well as response actions underway to contain, reduce or eliminate the threat from the contamination. Also required are the phone number and address of persons to contact for more information. Along with the state's general public participation guidelines there is a stipulation that certain actions do not need to be taken if there is little or no public interest, similar to Illinois' regulations.

Great Lakes State and Provincial Brownfields Redevelopment Policy Matrix

	IL	IN	MI	MN	NY	OH	ON	PA	QC	WI
Liability Exemptions/Protections										
Financiers/fiduciaries	X	X	X	X	X	X	X	X		X
Prospective purchaser		X	X	X	X			X		X
Non-responsible parties who undertake remedial activities	X	X	X	X	X	X	X	X	X	X
Intergovernmental MOU/MOA (state/federal)	X	X	X	X						X
Cleanup-Related Financing										
Site Assessment/Characterization		X	X	X	X	X		X	X	X
Cleanup/Remediation	X	X	X	X	X	X		X	X	X
Demolition/Site Preparation	X	X	X		X	X				X
State Bond for Brownfields Cleanup			X		X	X				
Redevelopment-Related Financing [1]										
Job Creation/Job Training	X		X			X		X		
Infrastructure	X		X	X	X	X		X		
Construction/Modernization/Renovation/Expansion	X	X	X	X	X	X		X		X
Land Assembly/Acquisition	X		X			X				X
Capital Access/Loan Guarantee/Loan Participation/Credit Enhancement	X		X		X	X				
Brownfield Inventory Development	X							X		
Tax Incentives										
Tax Increment Financing	X		X	X				X		X
Tax Incentives in Designated Areas or Zones	X	X	X	X	X	X		X		X
Technical Assistance										
Free On-Site Environmental Assessments (Phase I and II)	X	X	X	X		X		X		X
Business Development	X									
Free Assessment/Cleanup Guidance	X	X	X	X	X	X	X	X	X	X
Innovative Technologies		X		X					X	
Site Selection	X	X				X		X		X
Database of Sites/SIC Listings (not necessarily brownfields specific)	X		X	X		X			X	X
Land Assembly										
Institutional Partnerships										
State Interagency	X									X
State/Local	X	X						X		
Public/Private	X					X				X
State/Federal	X									
Federal/State/Local	X	X	X							
Community/Public Outreach or Notice										
Public Notice & Comment		X			X		X	X	X[2]	X[3]
Community Meetings/Public Hearing/Forum Required							X		X[2]	
Program Encourages Public Participation	X		X		X			X		

Great Lakes Commission, 2000

[1] Financial Assistance does not include Community Development Block Grants, which some states allow to be used for brownfields redevelopment projects (particularly Wisconsin).
[2] Public notice/ participation requirements come into effect in Quebec only if site is being reused without being cleaned up as specified by provincial cleanup criteria.
[3] Public Notice and Comment is required in Wisconsin for state-funded projects only.

IV. Greenfields in the Great Lakes Region

A. Overview

Greenfields play an important role in the Great Lakes basin, from economic, environmental and social standpoints. Despite, their historic and current significance, greenfields are under tremendous pressure from urban expansion. Loss of greenfields and their contribution to the economy, the environment and society has been a consequence of post-war economic restructuring and associated land-use trends.

Urban growth in the beginning of the 21st century continues largely to follow land development patterns that gained hold in the last 50 years, which are characterized by new low-density development on previously unbuilt land. This development pattern is commonly known as sprawl. Sprawl is characterized by new, low density construction,
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2. Subsidies for Sprawl Through Greenfield Development

Provision of subsidies and other incentives for greenfield development are the subject of much debate regarding the cost of sprawl. Such incentives pervade all types of policies at all levels of government, from infrastructure to real estate and tax and planning policies. These actions and policies favor suburban development and present barriers to the establishment of effective mechanisms for greenfields protection. In many cases, subsidies and incentives for greenfields conversion can be categorized as transparent or hidden.

a. Transparent Incentives/Subsidies

Transparent subsidies/incentives are those that are readily apparent or relatively easy to recognize and quantify. The costs associated with the development and maintenance of infrastructure is the most common and widespread transparent subsidy. Typically this occurs through property tax increases to cover the costs associated with new development. Impact fees attempt to shift more of the burden of new development from the general public (taxpayer) to the beneficiarinisms .9B(new development(i.e.,e) Tj 0 -14

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of “quality of life.” Attempts have been made to quantify some of these, though it is a daunting challenge as they are not always distinct. Farmland supports local and regional agricultural economies but, generally, also supports higher biological productivity and diversity compared to urban lands. Parks and open space provide recreation opportunities but also can contribute to tourism. For example, studies indicate that the loss in annual farm revenue alone due to farmland loss in Michigan is estimated at more than $100 million. However, this doesn’t consider the many other less-tangible benefits that are lost along with agricultural lands.

One increasingly popular way to attempt to quantify the non-market amenities and bring the loss of greenfields or their protection into the land development equation is through “willingness to pay” studies. One such study conducted by the American Farmland Trust examined residents’ value of farmland and open space in three Chicago collar counties– Kane, McHenry and DeKalb. Farmland and open space in these counties is under intense pressure from development. Responses from a survey of 4,000 households in the three counties indicated that residents were willing to pay an average of $484 per year for five years, the equivalent of $57 per year for 30 years, to permanently

mendations of such task forces do not necessarily translate into policy changes, they are nonetheless an indication that states are increasingly aware of the seriousness of the problem. Agricultural land has received increasing attention as a valuable natural resource that also is tied to the regional agricultural economy. As more and more farmland on the urban fringe is converted for development, citizens, local officials, states and even some developers are becoming increasingly concerned about preserving greenfields for environmental, recreational and even economic reasons.

Agricultural land protection on the Canadian side of the Great Lakes lags far behind the United States. Ontario has no formal strategies for protecting prime agricultural land and significant greenfields, with the exception of the Niagara Escarpment, which is afforded special protection under the (provincial) Niagara Escarpment Plan. A 1997 Provincial Policy Statement was issued pursuant to the Ontario Planning Act, which sets the ground rules for planning in Ontario. Though the policy statement says "prime agricultural lands will be protected for agricultural use," there are no formal programs in place to implement this policy. Official plans, which are required of each municipality, must "have regard for" the Provincial Policy Statement, but it is not a legally binding requirement.

1. Farmland Protection Policies/Programs

a. Tax Incentives

(1) Differential Tax Assessment

Differential tax assessment, also known as use-value assessment, is a tax policy that allows farmland to be taxed at a lower rate. The aim of the policy is to reduce pressure to convert farmland near urban areas to development and/or to recognize that such land typically places much less demand on local government for the services financed by property taxes. There are three different forms of differential tax assessment: preferential assessment, deferred taxation, and restrictive or contract assessment. With preferential assessments, property taxes are based on the productive value of the land as established by the state with no penalty for converting the land to other uses. Preferential assessments do not slow the conversion of land and may even encourage land speculation for conversion. Among the Great Lakes states, Illinois and Indiana are the only states that allow for pure preferential assessment. Ontario also offers preferential assessment whereby eligible Farml062inding adenco 0 -14rPrefer6464 0 Trotethat sucei24 on, and restricti. Ge l h le,c0 -s88ath tow the

(2) Circuit-Breaker Tax Credits

Tax credits also known as "circuit breaker" programs offer an alternative tax incentive to protect farmland from development. Michigan, Wisconsin and New York have this type of program whereby farmers can receive credits against their property taxes. In Michigan, farmers who enter into renewable 10-year temporary restrictive covenants with local governments can receive credits against their state income tax. Wisconsin offers two types of tax credits: farmland preservation credits and farmland tax relief credits. In counties that have farmland protection plans, farmers who comply with local soil and water conservation standards and whose land is in an agricultural protection zone or who have signed restrictive agreements with the state are eligible for farmland preservation credits. The farmland tax relief credit offers a 10 percent credit up to $10,000 on property taxes for all farmland owners with 35 acres or more. New York farmers can receive an agricultural tax credit on their school taxes. Under the 1996 state law, "farmers" are individuals or farm corporations that receive two-thirds of their income from farming after deducting up to $30,000 of nonfarm income. The Act grants farmers a 100 percent tax credit paid on the first 250 acres of agricultural land and a 50 percent tax credit for taxes paid on any additional acreage. These credits are estimated to result in more than a $60 million savings to New York farmers each year.

Recently-passed legislation in Michigan reduced the household income threshold from 7 percent to 3.5 percent to be eligible for the tax credit. This provides a greater incentive for farmers to keep their land in agriculture for a minimum of 10 years under the state's temporary restrictive covenant program. Other recent legislative changes in Michigan altered how farmland is assessed when it is sold. Under this law (PA 261), when farmland is sold, it can continue to be taxed at the rate of taxation prior to the sale of the land if the new landowner agrees to keep it in agriculture. Though the new landowner must sign an affidavit, s/he does not have to sign a temporary restrictive covenant with the state and is free to convert the land to other uses at any time.

Most experts agree that while tax programs support farming, these incentives by themselves do little to protect farmland from development. Tax credit programs in particular are criticized for encouraging reduced productivity in order to meet the required farm income level to be eligible for the tax rebates. Another issue is the amount of penalties required when farmland is converted. If penalties for withdrawal/conversion are too low, deferred taxation can actually encourage land speculation by making it easier for farmers or developers to hold land until the market price sufficiently outweighs the penalties. This is particularly true for farmland on or near the urban fringe. Tax programs also receive criticism for not distinguishing between farmland that is or is not threatened by development. In Wisconsin, for example, farmland preservation tax credits cost state taxpayers about $22 million a year, but more than half of that goes to counties that are not significantly threatened by development. Redirecting state funds to a Purchase of Development Rights (PDR) program might better address issue of targeting tax relief to the most threatened areas, but many Wisconsin farmers would lose their credits and would not be eligible for PDR.

b. Right to Farm

All of the Great Lakes states and the province of Ontario have "right to farm" laws that protect farmers from nuisance suits and from unreasonable local regulation. Right to farm laws were developed to protect farmers from nuisance suits based on chemical spray drift, odors, noises, hours of

smaller ones. In this way, sliding scale zoning is similar to maximizing the total allowable dwelling units on the smallest parcels. This concentrates development on the smaller tracts, which are less viable as farmland. Alpine Township, Michigan, (located in western Michigan's "fruit belt" region) and Clinton County, Indiana, are two places in the region that use sliding scale APZ. Other agricultural zoning ordinances include provisions that specify the permitted number of dwellings per parcel (areawide allowance); the percent of land that can be developed (percent area); a minimum allowable lot size (large minimum lot size); or allow one dwelling per specified number of acres (fixed area allowance).

A large minimum lot size for agricultural zoning is popular among local governments as a means for slowing the pace of development, but because the minimum size is often inadequate to support commercial farming, it has resulted in many areas being "too big to develop and too small to farm." For example, most local governments in Ohio require a minimum of 35 acres for agricultural zoning, but at least one town in Ohio allows 5 acre lots to be zoned agriculture. Many experts suggest that 25 acres is a minimum necessary to protect commercial farming. Large minimum lot sizes at 2, 5 or 10 acres may actually promote the subdivision of farms into high-end exurban development in the form of mini-estates, hobby farms and ranchettes, as large lots are expensive and require very large homes to make residential development on them profitable. This type of agricultural zoning may be desirable in transitional areas between more urbanized areas and working farms or rural areas, but should not be mistaken as a tool for the protection of agricultural lands for commercial production or for maintaining rural landscapes.

By itself, agricultural zoning has limited potential to protect farmland and open space from the pressures of urbanization. First, agricultural zoning is not permanent and is therefore vulnerable to rezoning or upzoning (i.e., decreasing the minimum lot size allowable in agricultural protection zones). Second, agricultural zoning generally reduces land values and, without other measures to compensate landowners, it is likely to receive opposition from some communities. Third, though counties can target agricultural land for protection through APZ, they have little recourse if towns and cities want to annex that land for urban development. Finally, the large variation in what is considered "agricultural zoning" (e.g., the minimum lot size and density restrictions) means that

county farmland preservation plan and a locally adopted APZ. Minnesota's statewide agricultural districts program also strengthens APZ by requiring agricultural zoning for land enrolled in an agricultural district (see discussion of agricultural districts below).

d. Agricultural Districts/Agricultural Security Areas

Agricultural district programs are authorized by state legislatures and implemented at the local level.

they are called "agricultural security areas." New York's comprehensive agricultural districts program was established in 1971, making it the oldest in the country.

Table 8
Great Lakes States' Agricultural District Programs

	IL	MN	NY	OH	PA
State policies must support farming in districts	X		X		X
Farmers in districts receive extra right to farm protections	X	X	X	X	X
Farmers in districts receive extra tax benefits		X			
Enrollment in district required to be eligible for PDR					X
Local planning requirement		X			X
Limitations on use of eminent domain in districts		X	X	X	X
Exemption from certain special assessments	X	X	X	X	

Great Lakes Commission, 2000

The full range of benefits associated with Minnesota's agricultural districts program are only available to farmers in counties that have adopted an agricultural land preservation plan. Additionally, Minnesota is the only one of the five Great Lakes states that provides farmers with land in agricultural districts with greater tax benefits, beyond those provided by differential assessment. Exemptions from special assessments (Illinois, Minnesota, New York, Ohio) provide another type of special tax benefit to farmers with land in agricultural districts. In this way, these programs offer greater rewards to those farmers who demonstrate a greater commitment to keeping their land in farming. According to the American Farmland Trust, farmers tend to prefer agricultural district programs over agricultural zoning, because enrollment is voluntary and provides benefits in exchange for keeping the land in agriculture (or in the district). A major advantage of agricultural districts as a farmland protection tool is the ability to retain large, contiguous tracts of farmland, which helps to ensure the preservation of a critical mass of farmland necessary to maintain and protect local farm communities and economies. Enrolling land in an agricultural district does not permanently restrict owners' use of their land and there is no direct penalty for withdrawing land from a district; however, withdrawal from a district is usually contingent upon county board (or equivalent entity) approval.

e. Purchase of Development Rights/Agricultural Conservation Easements

Purchase of Development Rights (PDR), also known as Purchase of Agricultural Conservation Easements (PACE), is a voluntary program that allows farmers to get the most money from selling their land without it being developed. "Development rights" can be sold to a local or state government or a private land conservation organization. Once the development rights are sold, these rights are transformed into responsibilities: the purchaser of the development right does not acquire the right to build anything on the land, but rather the responsibility to prevent development. Put another way, the purchaser acquires the right to keep development off the land. The farmer keeps the title to the land, and owns it outright, but the deed now has a restriction establishing an agricultural conservation easement on the property that prevents the land from being used for anything but open space or agriculture. The price of the development right is the difference between the price of the land when used for agriculture and what a developer would pay for the land. The farmer can continue to farm or sell it to another farmer at will. The farmer is still able to receive the highest market value for the land; however, it is received in two separate transactions: one from whomever buys the development rights and one from the next owner who buys the property. The deed restriction stays with the

property title and is transferred to the next owner.

In the Great Lakes region, local PACE programs exist in Minnesota and Wisconsin, while Michigan, New York, Ohio and Pennsylvania have PACE programs established at both the state and local levels. Wisconsin has a PDR program dedicated to outdoor recreation but has acquired easements on farmland that also benefit outdoor recreation. New York provides state funding for local PACE programs and administers the purchase of easements but does not hold or monitor the easements. New York local match requirements to receive state PACE monies have been met using municipal bonds and property tax increases. An example is the town of Pittsford, N.Y., near Rochester in the Lake Ontario basin, which approved $9.9 million in bonds in 1996 to purchase development rights and permanently protect 1,100 acres of farmland. This action was taken as part of the town's commitment to a comprehensive planning process, which involved proactive identification and assessment of the town's priority land areas for protection. A similar local program in Wisconsin is also funded through local property tax increases. On the Canadian side, provincial funding for agricultural easements designed to protect the Niagara Falls fruit belt from urban development was cut in 1995.

At the state level, Pennsylvania has the oldest PACE program in the Great Lakes region. Pennsylvania's program was established in 1989 with a $100 million bond referendum. As of February 2000, 166,424 acres of farmland had been purchased under the program, which amounts to approximately 3.9 percent of the total land in agricultural districts (agricultural security areas) and 1.7 percent of Pennsylvania's total agricultural land. Pennsylvania's program is unique in that farmers must enroll their land in a state-approved agricultural district (i.e., agricultural security area) to be eligible for PDR. The coupling of these two tools gives farmers a strong incentive to form agricultural districts, increases the chances that protected farmland is in an area where farming is economically viable, and limits development on nearby farmland located in the agricultural security areas which may also be awaiting participation in the PDR program. Together, these tools help ensure that lands subject to PDR/PACE do not become "islands" of farmland, but are part of larger tracts of contiguous land that is in agriculture. This can help ensure the critical mass of land necessary to foster a viable local farm economy.

There is no tried and true way to finance PDR/PACE programs. The most common sources of funding for state programs are annual appropriations, bond initiatives and real estate transfer taxes. New York and Pennsylvania have used bond monies to fund PDR/PACE. When bond monies were exhausted, Pennsylvania established a two-cent per pack cigarette tax to help finance its program, but also requires a local match. Matching grants from the federal Farmland Protection program have also contributed to PACE programs in Michigan, New York, Pennsylvania and Wisconsin. (See Table 9.) Michigan's PDR program is partly funded by monies received as penalties (recaptured) from landowners who terminate their temporary restrictive covenants ahead of schedule. Ohio's PDR program established in 1999 has not yet provided any state funding but legislation proposed in 2001 would target $25 million in state bond monies to the program. At the local level, other sources of funding for PDR/PACE include sales taxes, developer exactions (impact fees) and special assessment districts.

field surveys with program participants demonstrate that PACE makes it easier for farmers to

parcel in open space, which is usually protected under a conservation easement. Cluster zoning refers to local zoning ordinances that allow or require developments to be clustered. Clustering can protect open space and farmland; however, unless the protected parcels are linked to create networks of open space or buffers, the distribution of clusters are likely to result in a patchwork of protected areas, and therefore, a more clustered form of sprawl. This is particularly true where the density of clustered developments exceeds what can safely be supported by existing service systems, thus requiring improved sewer and water facilities. For this reason, clustering is more effective in protecting open space or transitional areas between farms and residences than in protecting farmland. Various forms of cluster development are currently practiced by local governments and developers in various locations throughout the Great Lakes region. However, no systematic effort has been undertaken to catalog the location or overall effects of these efforts.

b. Open Space Zoning

Open space zoning, like agricultural protection zoning, is a local government tool used to provide and protect open space. Local governments have the right to establish open space zoning, which may or may not be supported by actions at the state level (e.g., comprehensive planning and zoning requirements, planning grants, open space grants). Open space zoning is similar to cluster zoning in that it allows the same overall amount of development permitted by conventional zoning, but requires the construction to be located on only a portion of the parcel. The remaining open space is permanently protected under a conservation easement. Though some municipalities use the terms cluster zoning and open space zoning interchangeably, open space zoning differs in its emphasis on maintaining the maximum preservation of open space. The number of Great Lakes municipalities that use open space zoning is unknown.

As a greenfields protection tool, open space zoning shares most of the same strengths and weaknesses as agricultural protection zoning, but allows for a broader range of land uses, including recreation, wildlife and resource protection. Like other open space protection tools, it has the potential, if employed strategically, to restrict or buffer against urban expansion. This could occur if contiguous parcels concentrate development within a given area so that open space abuts other open space. In this way, open space zoning also could create more efficient land use by connecting developed areas to better provide common infrastructure and service needs, and connect open space to serve as greenways, growth buffers or ecological corridors. (To date, however, there are no known examples of municipalities in the region that have used open space zoning in this manner.) Otherwise, open space zoning, like cluster development/zoning and conservation subdivision design, creates islands of open space interspersed with denser subdivisions, another form of sprawl.

c. Greenways

Greenways are corridors of protected open space managed for conservation and recreation purposes. They often follow natural land or water features and link nature reserves, parks, cultural features and historic sites with each other and with populated areas. Greenways create and preserve open space, recreation and non-motorized transportation opportunities at hierarchical levels. Regional greenways connect communities and major habitat areas; local greenways provide significant connections within a community; and neighborhood greenways provide smaller connections and help tie together the larger system. Greenways can be supported with state funding or, as is more common, by non-profits (e.g., rails-to-trails conservancies) on a statewide level. State funding for greenways in Pennsylvania is

provided by a real-estate transfer tax. Greenways can be publicly or privately owned, and some are the result of public/private partnerships.

Greenways can vary greatly in size from a single urban waterfront to multi-state corridors. The Chicago Openlands Project aims to establish an extensive greenways and trails network throughout northeastern Illinois with connections into Wisconsin, Indiana and other nearby regions of Illinois. Southeast Michigan Greenways aims to establish a network of trails and greenways over a seven-county area and the Southwest Detroit Riverfront Greenway is an urban-industrial waterfront revitalization plan.

Typically, greenways are created in already developed areas to protect and enhance natural features and to provide recreation opportunities for urbanizing areas. In and of themselves, greenways do not protect undeveloped greenfields as defined for purposes of this report. However, greenways indirectly support greenfields protection in several ways. By enhancing the attractiveness of already-urbanized areas, greenways may help stem pressures for new development in outlying areas. Specifically, when greenways or parts of them are strategically located to provide buffers around existing metropolitan areas, they can provide a “greenbelt,” which can protect open spaces around towns and cities and may help delineate villages, cities and towns. However, coordination among local jurisdictions is needed to ensure that greenbelts do not spur leapfrog development in rural areas.

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recreation areas or protect natural resources, it may not protect those lands most at risk of development. Nonetheless, parks and recreation areas can protect greenfields when like-minded individuals/communities work together to achieve common goals. In Ohio, for example, state park districts are forming partnerships with local agencies and communities to protect "unique community resources." To the extent that greenfields are identified as a unique community resource, existing parks and open space programs can target at-risk lands for protection within the park system.

e. Conservation Easements

Conservation easements work like agricultural conservation easements (i.e., PACE/PDR) described earlier—the right to develop the land is sold or given to a state or local government or non-profit entity–except that the easement is placed on the land for purposes of conserving a natural resource, natural feature or ecological value in addition to, or instead of, protecting agriculture. The entity that acquires the easement (i.e., "development right") does not acquire the right to develop, but rather the right and responsibility to prevent development. Conservation easements can be placed on all or part(s) of the property. Once again, their effectiveness in protecting greenfields depends on the criteria for easement ranking and purchase. All easement programs have criteria to prioritize properties that will be eligible. Limited funds usually result in only those lands that best meet the criteria being purchased. To the extent that local and state governments include urban fringe areas under development pressure as part of the eligibility criteria, conservation easements can be a powerful tool for protecting greenfields. In particular, because these easements can be used for conserving land or natural features, as well as agriculture, there is built-in flexibility to allow for hobby farming, large estates and other open space uses so long as the conservation objectives are met. Wisconsin's rela-

2. Landowner Stewardship Initiatives

There are many methods for private landowners (e.g., owners of large lots or estates, including farmers) to become better land stewards, including estate management strategies that maximize open space protection in perpetuity. Many land conservancies and trusts provide information on estate management strategies, such as easement donation for open space protection. State and local governments and non-profit environmental organizations can facilitate private stewardship initiatives by providing an institutional framework for disseminating this type of information. Local governments can further provide incentives such as tax relief to landowners who elect to protect open space. One approach might be to provide greater incentives to landowners of greenfields that are at high risk of conversion or to landowners whose lands are adjacent to existing protected areas or other areas that are intended for long-term protection.

3. Conservation Subdivision Design

With conservation subdivision design, clustering is done with the express purpose of protecting significant natural features. Developers identify wetlands, steep slopes, floodplains and other areas that are either not suitable for development or are a desirable natural asset (e.g., woodlands or meadows). Then homes and buildings are clustered on the remaining areas to maximize views, access or other benefits provided by the protected natural features. Cluster and open space local zoning ordinances (see discussion above) can facilitate developers' use of this tool for conserving natural features when building subdivisions.

Great Lakes State and Provincial Farmland Protection Policy Matrix

	IN	IL	MI	MN	NY	OH	ON	PA	QC	WI
Ag Districts/ASAs										
State/Provincial				X	X	X		X	X	
Local				X[1]				X		
PDR/PACE										
State			X		X	X		X		
Local			X	X	X	X		X		
TDR										
State Authorizing Legislation					X			X		
Local Program				X	X			X		
Strong Ag Protection Zoning (i.e., tied to planning, ag districts)				X				X		X
Tax Incentives										
Preferential taxation	X									
Deferred taxation				X	X	X		X		X
Circuit breaker taxation			X		X					X
Comprehensive County Planning for Farmland Preservation				X	X			X		X
Right to Farm	X	X	X		X	X	X	X		X
Special Protections for Farms in Ag Districts/ASAs		X	X		X	X		X		
Review Required for Impacts on Ag Land From Publicly-Funded Programs/Projects		X	X	X	X			X		
State Funds for Open Space or Ag. Land Acquisition		X[2]		X	X	X		X		X
Long-Term Advisory Council for Ag Land					X	X		X		X
Technical/$ Assistance for Local Ag Land Preservation				X	X					
Multi-County Planning Entities	X	X	X	X			X	X	X	X

Great Lakes Commission, 2000

[1] Minnesota's local ag district program is limited to the Minneapolis-St. Paul area.
[2] Illinois provides state funds for open space only.

Glossary of Acronyms:
Ag Districts: Agricultural Districts
ASA: Agricultural Security Area
PDR: Purchase of Development Rights
PACE: Purchase of Agricultural Conservation Easements
TDR: Transfer of Development Rights

V. New Policy Directions in Brownfields Redevelopment and Greenfields Protection

A. Brownfields Cleanup vs. Containment: Exposure Controls and RCRA Reforms

Notwithstanding financial assistance, most state programs still require purchasers/new owners to contribute something to the cleanup costs. However, "cleanup" costs don't always mean dollars spent on removing or treating contaminants. Brownfields cleanup also includes the use of institutional controls (e.g., deed restrictions) to prevent certain uses of the property and engineering controls (e.g., capping, sheet piling) to keep contamination from entering exposure pathways that will harm humans or the environment. Broad use of these exposure controls has done much to contain costs associated with brownfields cleanup and has allowed literally thousands of sites in the Great Lakes region to be redeveloped which likely wouldn't have had treatment or removal been required. For some, however, the use of such controls raises questions about the long-term implications for the environment and human health. Are future land uses being compromised by the absence of environmental cleanup on brownfields? Exposure controls may protect today's generation, but what about tomorrow's?

To date, no comprehensive studies or reviews have been conducted to determine whether the exposure controls are working. Indeed, it may be too early, since many of them have been in place for only a few years. One could conclude that as long as the controls are monitored and enforced, there will be no unacceptable risks to human health or the environment from the use of such controls. Therein lies the problem. Presently, there are no Great Lakes state or federal programs in place to ensure long-term monitoring and enforcement of exposure controls. The Great Lakes states (along with many other states) and U.S. EPA are in disagreement

cleanup over containment. Remedial actions that involve only engineering controls are eligible for up to 50 percent financing from the province. However, where cleanup involves the use of treatment technologies instead of engineering controls, an additional 20 percent financing is available.

Another promising move toward more actual cleanup is a recently (1998) created rule to reduce the barriers to cleanup set forth by RCRA. Among other things, RCRA regulates the generation, treatment, storage and disposal of hazardous wastes during cleanup activities (known as RCRA corrective action). Depending on the type of wastes and practices that happened on a brownfield property, that property may be associated with a RCRA permit which requires corrective action. In 1998 U.S. EPA established a RCRA Brownfields Prevention Initiative work group to promote greater flexibility within and remove possible barriers to brownfields

(which is not necessarily the same thing), while still others track the number of acres remediated. For example, Michigan boasts that since the inception of its program in 1995 more than 3,000 brownfields have undergone a Baseline Environmental Assessment (BEA). While a BEA is the first step toward redeveloping a brownfields

brownfields, applies to small businesses and facilities that modify their operating processes to generate less pollution. The Minnesota Pollution Control Agency Loan Program is another example of financing

150 years to absorb all the brownfields in the city of Detroit. Using a more optimistic market demand scenario still leaves Detroit with a 77-year supply of brownfields. This research is based on the supply of nonresidential brownfield acreage and market demand trends for industrial and office development. Detroit is not unique in this situation. Based on the same research, Cleveland has a 48-year supply and Chicago a 113 year supply. Even the optimistic scenarios only bring these numbers for Cleveland and Chicago down to 28 years and 51 years, respectively. While former industrial property *can* be cleaned up for non-industrial purposes, this generally means cleaning up to a higher standard, which usually costs more. That difference in cost can be the difference between a brownfield and a greenfield location for a new office or apartment building.

What of the brownfields for which there is no demand or which are deemed uneconomical for redevelopment? This apparent oversupply of brownfields is an important issue for the Great Lakes region. Finding other ways to utilize these properties over the long term will ensure a shinier future for the Rust Belt.

Although brownfields can provide excellent opportunities to stimulate and redevelop urban businesses and industries, some brownfields sites may better serve as open or green space. Urban "greenfields," as referred to by some, improve the quality of neighborhoods and ultimately make them more attractive to potential residents and investors, particularly in urban areas where existing green space accounts for a very small portion of the overall acreage in a given municipality. Brownfields converted to open space have the potential to serve broader community interests rather than more specialized economic interests. However, brownfields conversion to green or open space would require public and private sector foresight and may require new or modified state, federal and/or local government procedures and monies to facilitate such conversions, particularly if the land will be retained as public land. Fortunately, several Great Lakes states are beginning to develop programs and procedures to facilitate brownfields conversion to green space. An example is Pennsylvania's *Green Opportunities for Brownfields*, an initiative which marries the state's land recycling goals with its conservation planning, watershed restoration, greenway and recreation initiatives. This initiative takes land recycling to a new level by promoting mixed-use land development projects that incorporate parks and greenways. It does so by applying a conservation design and planning process to brownfield redevelopment. When embraced by the development community and accepted by redevelopment proponents, this approach will help build more sustainable communities. Another example of integrating brownfields with green infrastructure is the waterfront revitalization portion of the Clean Michigan Initiative, which evaluates redevelopment projects in part based on whether they provide significant public access or recreation opportunities.

Agricultural lands with pesticide contamination are another form of brownfield. Their presence in the brownfields redevelopment arena has been dwarfed by the cleanup and redevelopment urban sites that *look* more like brownfields. But pesticide contamination on agricultural lands is real and can impede the sale, and hence continued use, of agricultural lands for agriculture or other purposes. Many of these lands are both brownfields and greenfields–brownfields by virtue of their contamination and greenfields by virtue of their lack of physical development and location on the urban fringe. Agricultural brownfields may be more easily remediated if their intended use is open space and/or recreation areas.

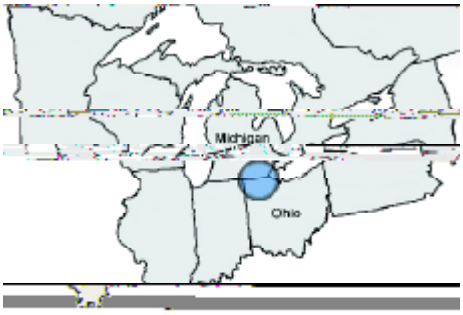
Milwaukee has been a leader in integrating brownfield revitalization with improved urban greenspace. Brownfields redevelopment has been integral to the city's overall revitalization strategy. Tax increment financing districts are used to carry out the city's goal of investing in public amenities (streetscapes, parks, pedestrian walkways) that will facilitate private investment and complement brownfields and other real estate redevelop-

ment. The goal is to recreate livable urban neighborhoods marked by access to greenspace, aesthetically pleasing urban design, and small, walkable blocks with a high level of connectivity. Though Milwaukee's efforts have been to improve the public realm to spur private investment, not necessarily to turn brownfields into parks, the public realm improvements are often part of the fabric of green infrastructure and can have far reaching effects to stimulate private investment in brownfields that might otherwise be overlooked.

F. Partnerships and Intermediaries

Many of the approaches or solutions discussed throughout this report require public policy decisions. Changes in public policy are the most obvious and direct way to move some of these approaches forward on a large scale. However, the private sector cannot be forgotten. Increasingly, business leaders and

intermediaries. Other entities, such as community development corporations and other community-based organizations, non-profit brownfields organizations such as the Pennsylvania-based non-profit Phoenix Land Recycling and the Michigan-based Consumers Renaissance Development Corporation, land trusts, and even Great Lakes ports are playing such intermediary roles, stepping in and applying their expertise where needed to get brownfields cleaned up and redeveloped.


Michigan
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G. Transfer of Development Rights

Transfer of development rights (TDR) programs allow landowners to transfer the right to develop one parcel of land to a different parcel of land. TDR programs can protect greenfields by shifting development from agricultural and open space areas to areas planned for growth. When the development rights are transferred from a piece of property, that property becomes restricted with a permanent agricultural conservation easement, much like PDR. However, with TDR, instead of the rights being purchased by a public or non-profit entity and not used, the development rights are purchased by another landowner and are used to build at a higher density than ordinarily permitted by the base zoning.

Generally established through local zoning ordinances, TDR is used by counties, cities, towns and townships. Some states have passed specific legislation authorizing local governments to establish TDR programs, but many TDR programs are established by local governments without such legislation. Without specific state legislation authorizing TDR, municipal governments must work with their attorneys to determine whether other provisions of state law allow them to use TDR.

TDR programs have three basic elements: the sending district, the receiving district, and TDR credits. Sending and receiving districts are established by the governmental entity that establishes the TDR program: sending districts are priority areas for protection while receiving districts are priority areas for growth and development. The TDR credits represent the development rights which are sold by the landowner in the sending district and purchased by the landowner in the receiving district.

Among TDR programs, there are four variations: **voluntary, mandatory, single zone** and **dual zone**. With voluntary TDR, landowners have the choice of developing their land under existing zoning rules or selling some or all of their development rights. Sending areas are not otherwise restricted from development. Voluntary TDR provides an option for landowners to conserve land and in practice mirrors more of a cluster zoning/development approach. Mandatory TDR still does not require landowners to sell their development rights, but development is limited in the sending areas through downzoning. In mandatory TDR, sending areas are typically downzoned to low-density farm (e.g., APZ) or conservation uses and development rights are sold as a way to receive compensation for the lost land value due to down zoning. Single zone TDR means that a single zone serves as both the sending and receiving area, while dual zone TDR involves separate zones that are distinct sending and receiving areas.

According to the American Farmland Trust, the dearth of fully-implemented TDR programs makes it i.e.-15.12 Ton TD ,by the l TDR

Montgomery County's TDR program has protected more than 38,000 acres of farmland. A combination of factors contribute to Montgomery County's success. The program exists at the county level and therefore covers more land area than say, a township. It is a mandatory, dual zone TDR program and is supported by a TDR bank. Development rights in sending areas were allocated based on the zoning ordinance in effect prior to the establishment of the TDR program, so the downzoning that occurred with the TDR did not affect the development rights associated with the land. This worked by downzoning from one *building right* per five acres to one *building right* per 25 acres, but giving landowners in the sending area one *transferable right* for every five acres owned. Thus, although the program decreased the ability to develop the land, the potential for lost equity (and court battles) due to TDR was minimized. Last, but not least, an extensive public outreach campaign was undertaken to educate residents about the program and its benefits.

Like PDR/PACE programs, TDR can prevent development of agricultural and other valued open space areas and provide the owners of those lands with liquid capital that can be used to enhance farm or open space viability. However, with TDR the capital comes from private, not public, sources and the sale and purchase of the development rights is essentially a private market transaction. Local governments do, however, approve transactions and monitor easements. Some jurisdictions have created "TDR banks" that buy development rights with public funds and sell them to developers and other private landowners. Manheim Township in Pennsylvania, the New Jersey Pinelands Commission and Montgomery County in Maryland have TDR banks. Public TDR banks help maintain minimum prices for TDR credits, provide a buyer when the market is slow and keep the TDR market competitive. TDR banks also have the potential to help facilitate the transfer of development credits between jurisdictions. This could be potentially useful in a metropolitan urban fringe context where potential receiving and sending areas are in separate jurisdictions. This might be the case, for example, where one jurisdiction is already urbanized and the other wants to remain rural.

Pennsylvania (1988) and New York (1989) are among the several states in the U.S. that have specific legislation authorizing the creation of TDR programs. However, there are no TDR programs in the Great Lakes basin portions of either of those states, nor have any other local jurisdictions in the Great Lakes basin established TDRs. Outside the Great Lakes basin, but within the states of New York, Pennsylvania and Minnesota, more than a dozen jurisdictions have established TDRs, though none of these are mandatory. (See Table 11 below.)

Efforts to evaluate TDR to date indicate that, with the exception of Montgomery County, Maryland, few TDR programs have been successful in protecting substantial amounts of farmland. As of 1997, for example, TDR had protected fewer than 500 acres of farmland in the entire state of Pennsylvania.

TDR programs are technically complex and must be carefully designed to achieve their goals. They require significant investment of staff time and resources to implement–something most local governments do not have. Observers note that due to its complexity, TDR generally requires an extensive public education campaign to obtain the necessary local

Table 11: Jurisdictions in Great Lakes States with TDR programs

Pennsylvania	New York	Minnesota
Bucks County (2 townships)	Perinton	Blue Earth County
York County (6 townships)	Central Pine Barrens (L.I.) (3 townships)	
Chester County (3 townships)	Southampton	
Berks County (1 township)		

Source: American Farmland Trust, 1997

political support. Residents located in proposed receiving areas may oppose having the density of development in their area increase. At the same time, landowners in sending areas need to be convinced of the marketability of their development rights. To this end, the success of TDRs also depends on a healthy market for TDR credits so that sellers are more likely to receive a fair price, further encouraging holders of credits to participate in the program. This is particularly important in mandatory programs so that the loss in property values associated with downzoning is not challenged as a property "takings." It is for this reason that TDR is more appealing than APZ because landowners can retain their equity by selling development rights.

Communities that have been most successful in using TDR are characterized by steady growth, the political will to maintain and implement strong zoning ordinances, and adequately funded and staffed planning departments that have the time, knowledge and resources to administer complex land use regulations.

Despite its inherent complexities, TDR has unique potential as a tool for promoting greenfields protection as well as urban redevelopment within the Great Lakes basin. TDR effectively forces communities to plan simultaneously for land development and land protection. If the development effort is applied to encouraging urban redevelopment or development in already serviced areas and the protection effort is applied to greenfields at the urban fringe, then TDR can address some of the most pressing issues at the center of urban sprawl.

Enactment of specific state legislation authorizing the establishment of local TDR programs is an important first step. Without specific legislation at the state level, local governments are left in a legal limbo regarding the legitimacy of TDR and will continue to have to go to extraordinary lengths to establish and potentially defend their TDR programs. If designed properly, such legislation could also provide incentives for local governments to cooperate in establishment of TDR programs by establishing a TDR credit bank at the state level or authorizing the creation of such a bank at the local or regional level. A state or regional TDR credit bank would be particularly helpful where the areas of desired protection and the areas of desired development exist in different jurisdictions. State legislation enabling TDR will provide the legal basis for local governments to proactively exercise their land use authority in controlling the destiny of their own communities. The provision of technical and financial assistance for land use planning at the local level that includes technical support for TDR programs is another area where state leadership is needed.

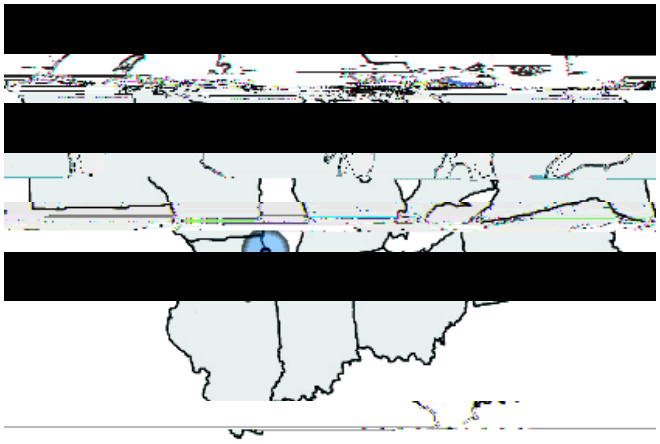
At the local level, careful designation of sending and receiving areas is key to establishing TDR programs as a tool for urban revitalization and greenfields preservation. Some local governments will need to coordinate with other localities and look beyond their individual geographic boundaries to regional land use trends to determine the most appropriate places for sending and receiving development rights.

Marketable development rights represents another spin on TDR. The idea behind marketable development rights is the establishment of a tradable permits program approach, much like the federal Clean Air Act program that allocates pollution credits/permits to businesses for trade or sale so long as overall pollution thresholds are not exceeded. In the same manner, under marketable development rights, local jurisdictions would decide how much of the remaining undeveloped land will be developed (i.e., the threshold), without specifying the location of that development. In this sense, marketable development rights is similar to voluntary TDR. However, the development limit or threshold would be applied to the entire jurisdiction, not a specific zone, and all landowners would be allocated a number of development rights (i.e., development credits) that correspond to the developable land they own. In concept, each landowner would be free to do what they want with their rights: sell them, use them to develop their land, purchase additional rights to develop more of their land, or hold them for future use or sale. The notion of marketable development rights

is being examined by researchers at Michigan's Grand Valley State University for potential application in western Michigan, but no actual marketable development rights programs exists to date. The obvious upshot to this approach is the theoretically clean internalization of land values that are typically treated as externalities. The downsides are that pollution limits are probably much easier to establish than development limits and decisions about which land is to be developed or protected are based purely on market transactions. Without some intervention into the market (e.g., zoning) to complement this approach, the result will likely be more patchwork development and protection.

H. Comprehensive Farmland Protection

As described earlier, all of the Great Lakes states have a variety of farmland protection policies. They range from relatively low-level protection, such as right to farm laws, to permanent, long-term protection such as purchase of agricultural conservation easements. Though some are admittedly more protective than others, no single farmland protection policy or tool alone can ensure adequate protection of farmland or local farming economies. Research to date indicates that the most effective approach to protecting prime farmland and ensuring viable local farm economies is a comprehensive farmland protection program that addresses four critical issues: tax relief for farmers, disincentives for farmland speculation/conversion, funding for farmland



programs in Michigan and New

Support for brownfields inventories among Great Lakes states is uneven. While some argue that such inventories stigmatize properties and neighborhoods, others recognize their contribution to planning and urban revitalization. Inventories appear to facilitate brownfields redevelopment best where they can be linked with revitalization plans and/or specific redevelopment proposals and can be used to assist in prioritizing redevelopment needs and developing strategies to effectively market properties to meet those needs.

January 2010, Wisconsin) have laws that require zoning to be consistent with a local comprehensive plan. The end result is a U.S. planning system primarily based on a set of zoning rules. In Ontario, municipalities are required to develop official plans, which lay out strategies for long-term growth. Secondary plans, zoning, and public works plans must be consistent with the official plan. However, official plans need not be consistent with policies developed under the Provincial Planning Act, which commits the province, among other things, to protecting agricultural lands and other natural resources.

Zoning ordinances separate land uses into different areas and describe where and what type of development (i.e., commercial, residential, industrial) can take place. However, they do not consider the "how" and "when" issues–issues of how new developments will impact the overall community, when they should occur based on the communities' priorities for growth and the ability to finance necessary public infrastructure and services, particularly over the long term. In short, they do not plan. Zoning ordinances that favor low-density development, strict building codes and extensive permit requirements can make redeveloping a central urban site unfeasible or create more bureaucratic hurdles than developers care to jump (or can afford). If brownfields redevelopment was driven more by planning than zoning, communities could consider the net benefit to the things,l, ind Tjd,at er thhalf wereloping a cbe wth mixeinto .r, they doanre br mongindveakjumat bebe wth ompre-15.12 T
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In addition, Growing Smarter included $3.6 million in local land-use planning assistance as part of the Governor's 2000-2001 budget.. The state has also developed streamlined guidelines for local governments applying for state funding to develop multi-municipal comprehensive land-use plans. The guidelines spell out that the state's priorities to fund the development of plans that are done in cooperation with other jurisdictions and that meet the state's land use objectives. Finally, Growing Smarter has included a top-to-bottom interagency review of state government to determine how state funding programs support local land-use planning. The review, conducted by the state Interagency Land Use Team, identified more than 100 state programs that impact land use and calls for state agencies to:

- Lead by example and support sound land-use principles in their day-to-day operations, including the management or sale of state-owned property;
- Consider and strive for consistency with local plans and ordinances when implementing programs, giving regulatory approvals, issuing permits and disbursing state funds;
- Improve interagency coordination and communication on land-use issues;
-

piecemeal or inadequate open space protection are land-use problems that extend beyond jurisdictional boundaries and require solutions at a regional or multijurisdictional level. They are influenced by decisions made by numerous local and state authorities about water and sewer supplies, transportation networks, and large development projects, among other things. The effect of each individual land use or land protection decision takes on a new dimension when its cumulative regional impacts are considered. Unfortunately, government powers are not matched to the scale of the problem—sprawl and its attendant problems are regional in scope but modes of governance are not. Although many metropolitan areas do have regional planning bodies (councils of governments or metropolitan planning organizations), these entities often have very limited authority for specific functions (transportation, sewers, etc.) or their authority is purely advisory and they are not accountable to voters. This mismatch between governance powers (and political constituencies) and the scale of land use problems results in land-use decisionmaking that is often cumbersome, duplicative and inefficient.

To ensure greater efficiencies and avoid duplication and conflicting policies in land-use planning, state leadership is imperative to advance greater dialogue and coordination within and among local governments, among state agencies, and between state and local governments. State agencies need to coordinate their policies to ensure that they are not conflicting with one another (e.g., the state Department of Transportation is charged with building highways while the state Department of Agriculture is charged with protecting farmland or the agricultural economy). Local governments need to coordinate their planning to account for the regional impacts of local land use decisions. And finally, communities that do take the time and effort to develop comprehensive plans should be respected when state or federal projects are proposed. **]**

Fortunately, there is growing recognition of the importance of integrating brownfields redevelopment and greenfields protection into the larger issues of urban revitalization and planning. The Great Lakes states of Minnesota, Pennsylvania and Wisconsin have begun to take steps toward providing a more comprehensive approach to growth and development by launching their own smart growth initiatives (see case study on pgs. 61 and 62.)

J. Revenue Sharing

The pressure or desire to increase the local tax base is a major reason why fringe communities are less discriminatory about new development projects and why greenfields are easily converted to strip malls and subdivisions. Local jurisdictions compete for new development projects to increase the local tax base, often offering a reduction in development fees or other incentives in order to win the project over. Greenfields conversion is seen as a small price to pay for the supposed revenue source(s) associated with new development. One way to reduce the pressure on fringe communities to compete with one another for new development projects is to establish a system of revenue sharing. This would result in the costs and benefits of new development and the associated infrastructure and services being shared more equitably over the affected geographic area. Regional tax base sharing, regional asset districts, regional compacts and joint economic development districts are approaches to pooling resources among several adjoining jurisdictions and sharing responsibilities for services, infrastructure and other economic development activities.

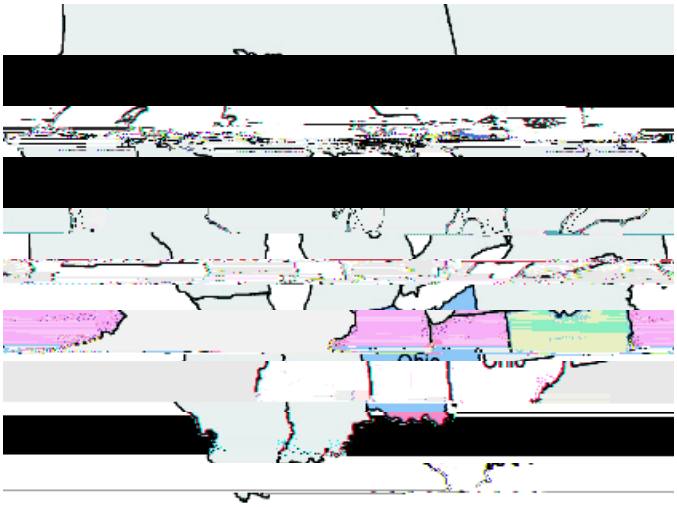
The Twin Cities Fiscal Disparities program is the best known U.S. example of regional tax base sharing. In place since 1975, the program serves seven counties, almost 200 municipalities and over 2.5 million people in the Twin Cities metropolitan area. The program is administered by the Metropolitan Council, a regional agency whose 17 gubernatorially-appointed members represent metropolitan agencies, local governments and

the state legislature. Under the program, the increase in commercial and industrial tax base is allocated between the "home" community (60 percent) and the "region" (40 percent). A formula based on property values and population is used to calculate the "regional share." The program has reduced regional tax base disparities from 50:1 to about 12:1. Other examples of revenue sharing exist. The Pittsburgh Regional Asset District is authorized by the state general assembly and created by county commissioners. The district includes Allegheny County and 130 suburban cities who share the revenue from a countywide sales tax to support regional parks, libraries, the zoo in the city of Pittsburgh and to reduce property taxes. Ohio state law authorizes municipalities and townships to form joint economic development districts whereby taxes from development within the districts are shared among participating jurisdictions to cover the costs of public improvements in the areas targeted for development. The City of Dayton and Montgomery County where it is located, have joined to establish the first countywide voluntary economic development tax-sharing program in the country. The program is administered by a committee of public and private sector leaders and operates two funds: one is funded by sales tax and used to support agreed-upon economic development projects, and another is supported by property tax increases due to growth, and is distributed to non-growing jurisdictions.

Revenue-sharing systems could be taken one step further, wherein revenues redistributed to non-growing jurisdictions/communities could be used to protect farmland and/or preserve and maintain open space on the urban fringe. Pittsburgh's regional asset district hints at such a structure, with part of its revenue going to support regional parks. A revenue sharing arrangement would go far to help deter urban sprawl if some funds were used to support strategic location of regional or metropolitan parks in a way that would limit urban growth or serve as buffers between urban and rural areas.

Case Study: Ohio's Conservation and Revitalization Fund—Linking Brownfields Revitalization and Greenfields Protection

On November 7 2000, Ohio voters approved a statewide Clean Ohio Fund. Also known as the Ohio Conservation and Revitalization Fund, it will invest $400 million to address pressing environmental and economic development needs. Ohio is not the first Great Lakes state to pass a statewide initiative for environmental and economic purposes. In 1996, New York voters approved a $1.75 billion Clean Air/ Clean Water bond proposal. In 1999, Michigan voters passed a $675 million bond proposal to improve parks, waters and urban areas. However, Ohio's fund differs from other state initiatives in its explicit recognition of the linkages between brownfields revitalization and greenfields protection.



Of the $400 million for the Clean Ohio Fund, half will be available specifically for brownfield redevelopment and related urban revitalization. The other half will fund conservation programs, including farmland preservation, other greenfields preservation (e.g., river corridors, forests, wetlands), recreational trail development, and stream and watershed protection. These revitalization and conservation priorities were identified by four state agencies: the Ohio Department of Development, the Ohio Department of Agriculture, the Ohio Department of Natural Resources and the Ohio Environmental Protection Agency. The fund also has broad public support from a variety of local, non-governmental and private sector interests.

Passage of separate legislation by the Ohio General Assembly is needed to outline the details of how this funding will be further allocated, who will be eligible for funding and other programmatic details. A high priority is being placed on ensuring that decisions as to how and where funding is to be used will be made at the community level, based on local needs and priorities. It is envisioned that local governments and other public agencies and non-profit organizations will be eligible to apply for grants or low-interest loans, with local matching likely required for grants. This match could come from local governments, the private sector or from non-profit organizations. Revenue will be generated through the sale of bonds, which will provide a permanent, dedicated funding mechanism for these efforts.

> The Clean Ohio Fund's investments in brownfield cleanup would also contribute to green space preservation. As urban sites are made available for new business and industrial development through these investments, Fund dollars would also be helping to reduce threats to Ohio's farmland and green space.

Strategic Actions

For Brownfields Redevelopment and Greenfields Protection

These strategic actions are presented for consideration by public, private and non-profit leaders throughout the Great Lakes basin and region. They are not listed in order of priority. The project partners realize that not all strategic actions will be appropriate or necessary in all cases; certain strategic actions may be more timely or appropriate than others. However, the strategic actions are an excellent starting point for the review and development of policies, workplans and priorities in the interest of promoting more efficient and sustainable use of land—a vital and unrenewable resource.

A. Brownfields and Greenfields Linkages

State/Provincial Actions

1. Establish a special commission or task force to evaluate real estate tax policies as they pertain to greenfields protection and brownfields redevelopment/urban revitalization. Such an effort should include an assessment of the potential for:
   a) a greenfields conversion tax;
   b) a real estate transfer tax;
   c) split taxation system whereby land (not buildings) is taxed in certain areas; and
   d) regional tax sharing.

A conversion tax would apply to all farmland and open space that is converted to other uses (i.e., development). The tax dollars would be managed by a regional (multicounty) or state-sponsored land bank. Monies generated from the conversion tax would be distributed to local jurisdictions (cities, counties) to help finance urban revitalization efforts including, but not limited to, brownfields cleanup and redevelopment.

This type of conversion tax will allow multiple municipalities to collaborate, share responsibilities, focus on areas for urban development, and discourage development of greenfields. It will be particularly helpful to adjoining communities in which one is predominately urbanized and the other is predominately rural, and the communities desire to retain or strengthen these characteristics. The state of Maryland has a statewide agricultural land conversion tax that imposes a 5 percent tax on the sale price of farmland that will no longer be used as farmland and will no longer qualify for farmland property tax assessment.

Like a conversion tax, a real estate transfer tax can discourage land speculation. However, a real estate transfer tax differs from a conversion tax in that it would apply to all real estate transfers. As such, it would provide a potentially larger source of revenue which could be used for both urban redevelopment and greenfields protection efforts. Municipalities could increase the base tax for use within their jurisdictions. State funding for greenways in Pennsylvania is provided by a real estate transfer tax.

Experts have suggested that current taxation policies that tax buildings rather than land in urban areas discourages higher density development. It is suggested that taxing land rather than buildings would provide important incentives to develop each parcel of urban land to its fullest potential. Such experts note, however, that such a tax shift will only work if complementary policies protect surrounding greenfields and rural lands. To this end, property tax reduction (e.g., by taxing buildings, not land) and/or conservation tax incentives are necessary for outlying farmland and open space. By lowering taxes on undeveloped land, there is less economic pressure to sell or develop the land. Tax savings should be recaptured by the community if the greenfields are eventually developed, as is already done in several Great Lakes states with farmland that is subject to lower tax rates (e.g., use-value assessment).

Two complementary goals of regional tax sharing are to reduce revenue disparities among jurisdictions and dampen the competition among jurisdictions to attract new development. A pioneering example of this is the Metropolitan Revenue Distribution system for the seven-county Twin cities (Minneapolis-St. Paul) region. This fiscal disparities program, which has been in effect since 1975, allows 60 percent of the taxes from new commercial/industrial development to stay with a jurisdiction but redistributes the remaining 40 percent to other communities based on a population and property values formula. Such a program has obvious advantages for poorer communities and urban revitalization. Its effect on urban fringe communities and the forces of sprawl is more limited but could be strengthened by altering distribution ratios for particular places and purposes for which the revenue could be used.

2.

4. Require coordination among state agencies for state-funded projects that will directly result in changes in land use and establish a process for multiagency evaluation of such projects that: a) ensures that such projects support the state planning goals and/or the mutual goals of greenfields protection and brownfields redevelopment/urban revitalization and b) requires the consideration of alternatives where the project is inconsistent with local land-use plans.

This strategic action directly complements strategic action #3 to ensure more efficient implementation of state programs and more effective expenditure of state funds by ensuring that publicly funded projects are coordinated and implemented consistent with common statewide goals related to land-use planning, growth and development. It will also ensure that alternatives are considered and pursued where mandated activities are in conflict with state goals or with local land-use plans developed pursuant to state goals. Promoting and ensuring state consistency with comprehensive plans will reinforce and complement state incentives for local governments to develop comprehensive plans that reflect state planning and/or smart growth goals.

5. Encourage the development of local comprehensive plans and provide funding to support their development. Such funding should be contingent on plans that reflect state/provincial planning goals or that include designated areas for growth and also for protection; promote urban revitalization, greenfields protection and transit and/or pedestrian-oriented development patterns that enhance neighborhoods and reduce public infrastructure and service costs and discourage sprawl; and are prepared through local interjurisdictional agreements or in cooperation with other municipalities.

Development of local comprehensive land-use plans is voluntary in all of the Great Lakes states. As an alternative to requiring the development of comprehensive plans, states can provide a strong incentive for comprehensive plan development by offering planning grants to local governments that develop plans that reflect state planning goals. Minnesota, Pennsylvania and Wisconsin have demonstrated leadership among Great Lakes states in this area by passing legislation that defines what comprehensive plans should include and by offering incentives for local governments to develop and implement such plans. Pennsylvania's 2000-2001 budget provides $3.6 million for local land-use planning assistance and ties the money to new (July 2000) revisions in the state municipalities planning code that establish incentives for intermunicipal and innovative land-use planning, including revenue sharing, transfer of development rights and the establishment of designated growth areas. Legislation passed in 1999 (Act 9) in Wisconsin provides $2.5 million in planning grants and ties that money to the development of traditional neighborhood development and conservation subdivision ordinances, smart growth, urban revitalization, transportation alternatives, and intergovernmental coordination. Some funding to develop and implement plans has also been provided under Minnesota's 1997 planning legislation.

State/provincial legislation that encourages planning should allow for flexibility while encouraging a systematic approach to development so that local comprehensive plans are based on criteria that consider previously-developed sites (or buildings for reuse or conversion) for development before greenfields sites, particularly where public investment is concerned. This approach is a national policy in the United Kingdom. Legislation should also encourage intergovernmental cooperation/coordination and innovative land development and protection techniques. For example, not every community needs to allow for every type of land use (e.g, industrial, commercial, residential, agricultural).

6. Require that zoning ordinances be consistent with comprehensive plans.

14. Implement business location decisionmaking policies that are sensitive to the issues of greenfields protection and brownfields redevelopment.

Business must factor many issues into decisions on relocation or placement of new facilities. Whether it's a retail store, headquarters building or factory complex, locations are extremely important. Market proximity is often a determining factor, but area quality of life, labor availability, transportation access/supplier and distribution network can be as important depending on the type of facility. Those companies which depend on a good corporate image and relations with their host or home communities pay more attention to their local facility impacts. Businesses which devise policies to minimize impact on greenfields and assist with urban revitalization usually also benefit in terms of public perception and related employee morale.

20. Promote city farmers' markets and linkages to urban fringe farmsteads with both organic/regular production practices.

In the first half of the twentieth century "truck gardening" and truck farms were much more commonplace. These farms were usually on the outskirts of cities and made their products available at the farm or through delivery to grocers and distribution markets. Postwar suburban development engulfed these farms as consumer patterns changed and the corner store gave way to the supermarket chains with their volume-buying practices.

Urban farmers' markets are now growing in popularity. These places where farmers collectively market their produce are an outgrowth of the venerable roadside stands and summer fairs as well as of the earlier truck farm era. Consumer preferences are broad spectrum, but one segment has embraced fresh food and will pay a premium for it. Organic production, which doubled from1992 to 1997, is also part of this trend. Communities can provide assistance to this farm niche by providing market space and administrative support, with some costs reimbursable through farmer fees. Support could include, where practical, institution of a public food purchase program for hospitals, schools, shelters and foodbanks.

Urban fringe areas which have had a tough time supporting conventional farming operations are more conducive to a renaissance of truck farms tied to farmers' markets and other direct marketing options. Such farmsteads with diverse specialty crops that command higher prices, can be smaller with less large equipment needs. A network of these small farms, possibly organized under a cooperative structure, could help hold their ground against the development onslaught. Communities, by actively working on behalf of their farmers for the benefit of their residents, could indirectly curtail sprawl beyond their borders.

C. Brownfields/Urban Revitalization

Federal, State/Provincial, and Local Actions

21. Establish new initiatives for designating local historic districts and expand the federal historic preservation income tax credit to include a wide range of residential and commercial structures.

Many older cities in the Great Lakes region, both large and small, contain impoverished neighborhoods with a mix of commercial and residential structures. Abandoned and derelict buildings coexist with habitable dwellings and neighborhood cohesiveness is strained. Some neighborhoods retain their historic character, revealing an evolution of building type and social and ethnic change.

Urban revitalization can be spurred by utilizing the historic values inherent in these neighborhoods through the designation of historic districts and buildings. A broadening or relaxation of the usual criteria for designating state and local historic districts could act as a catalyst for promoting reinvestment in older city areas by restoring deteriorating vintage neighborhoods. One step could begin with residential buildings by extending to homes the rehabilitation tax credit opportunities available for commercial buildings.

21.

23. Great Lakes states and provinces should adopt public participation policies within existing brownfields cleanup and redevelopment programs that provide meaningful opportunities for neighborhood involvement throughout the cleanup and redevelopment process, and support the use of neighborhood-based land use plans.

Residents and citizen groups can be a resource for redevelopment projects, providing information on the history, current conditions, and needs of the community for projects considered by local governments. Greater public outreach and community involvement improves public relations with respect to redevelopment proposals, and also has the potential to generate neighborhood support for individual projects and a supportive constituency for development/redevelopment on surrounding parcels.

For many Great Lakes states, public participation is synonymous with notification. In some states, an evaluation by "responsible parties" is required to determine the need for public participation. One of the criteria for this evaluation is the

Local Actions

28. Through the use of fee incentives and permit expediting, promote small-scale infill development in urban areas.

Vacant city land is both a liability and an opportunity. On or off the tax rolls, contaminated or clean, is a site suitable for development or is it otherwise unusable? These matters count. There are generally enough good reasons for cities to focus development on already built-up places. However, what can be done to induce such development beyond the tax forgiveness, site preparation, liability waivers, interest reductions, and job training deals which large, higher profile projects can at times leverage? Fee incentives and permit expediting, applied fairly, could be the catalytic agent.

29. Adopt local zoning ordinances and building codes that are flexible, and design standards that promote mixed uses to facilitate rehabilitation and redevelopment of older buildings and neighborhoods.

Many traditional building codes or zoning rules prohibit mixing residential and commercial uses within a single building or on a single building site. This is based on old-fashioned notions that such shared uses are incompatible architecturally and functionally, and thus must be separated. Such codes and ordinances encourage or even require relatively uniform low-density development and can be significant obstacles to urban rehabilitation and redevelopment. In fact, many residential and commercial activities can operate in tandem, often with mutual benefits. For example, residents living above stores provide extra eyes on the street when those commercial operations are closed. Building codes, design standards and zoning ordinances that focus on maximizing the areas of compatibility can enhance opportunities for redeveloping whole neighborhoods, not just "sites." Performance-based zoning—zoning that considers the net and cumulative impacts and benefits of a project to meet the goals and objectives of an overall project or to meet consistency with comprehensive plans—provides an alternative to standard zoning practices.

Maryland's Smart Codes program provides a model for Great Lakes states. Modeled after a 1997 New Jersey rehabilitation code, Maryland's Smart Codes program provides an example of a revised approach to building and zoning that promotes infill and urban redevelopment. Enacted in April 2000, Maryland's Smart Codes replaced a confusing patchwork of construction codes with an easy to use code that spells out all of the code requirements for existing buildings, clearly separates rehabilitation requirements from those for new construction, and provides a framework in which code requirements will gradually increase as the scope of the rehabilitation project increases. This allows small rehabilitation projects to proceed that otherwise would have been postponed or abandoned due to the unnecessarily long time delays and high costs of achieving compliance with the full set of construction codes for new buildings. Financial incentives are provided to those localities which adopt the code without amendments.

Local and Private Actions

30. Encourage design competitions for redevelopment of central city and first-ring suburban commercial nodes where higher density and mixed-use zoning are combined with traffic calming initiatives.

Many communities have organized forums/meetings where particular redevelopment projects and related planning initiatives are described. The larger the scale of the project or plan the more likely it is that public participation is strongly encouraged. Design charettes are another form of get-together where community members and design professionals engage in directed discussion sometimes grounded in a "visioning" exercise. Once political and community buy-in is achieved, communities can organize design competitions in which architectural models, renderings, drawings and relevant documents are the products.

Central cities and first ring suburbs usually have aging infrastructure, housing stock and commercial districts in common. Commercial strips and nodes are woven throughout the urban fabric but many of these places look out-of-date and have lost their competitive appeal to newer shopping centers. A diversity of retail, restaurant and other service-oriented stores is a factor in creating a successful commercial mix. Also, traffic patterns, flow and parking availability with ample consideration to

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