

F. Sustainable Infill and Brownfield Redevelopment

Strategic Action

Through financial incentives, process incentives (such as expedited permitting), and other appropriate means, promote the *sustainable* redevelopment of underutilized sites in urban areas, including small-scale infill sites and brownfields.

Rationale

There are important economic, social, environmental, and public health benefits that can be realized by restoring brownfields and other infill sites and having the properties back in use. The benefits are often increased or extended when plans are made for the *sustainable* redevelopment of sites. *Sustainable* redevelopment means giving consideration to how the site, the buildings on the site, and the activities that will take place at the site will affect the community, the local economy, and the environment, both short-term and long-term.

Among the sustainable features can be incorporated into site redevelopment are:

- Native plants and natural landscaping which need less watering and less treatment with fertilizers and pesticides as compared to non-native vegetation.
- Green roofs -- vegetated roofs that improve storm water management, absorb UV rays and help moderate temperatures.
- Energy-efficient building features, such as improved insulation, energy-efficient lighting, solar panels and grey water reuse systems.
- Cisterns -- large water collection units that store and provide the reuse of rain water, which help conserve drinking water supplies and improve storm water management.
- Water-efficient plumbing features to prevent waste or overuse of water.
- Rain gardens -- constructed vegetated areas used to collect and absorb storm water and also provide aesthetic value.
- Permeable pavements, which allow storm water to permeate back into the ground and prevent contaminated runoff.
- Site features which encourage or allow for multiple modes of transportation.
- Materials selection for site structures from local manufacturers, distributors or recyclers.

The sustainable redevelopment of brownfield/infill sites can result in significant environmental benefits, such as improved storm water management and/or reduced air emissions. Redevelopment of sites to incorporate green features such as trees and native landscaping can also provide important social benefits. Researchers at the University of Illinois found:

- ✓ Apartment buildings surrounded by trees and greenery are relatively safer than buildings devoid of green. The greener the surroundings, the fewer the crimes.
- ✓ Urban families with trees and greenery in their immediate outdoor surroundings have safer domestic environments than families who live in buildings that are barren of nature.
- ✓ Symptoms of children with Attention Deficit Disorder are relieved after contact with nature. The greener the setting, the more the relief.

In addition to environmental benefits, many sustainable features and practices, such as reduced energy consumption, also result in economic savings and related socio-economic benefits. By taking into account the three elements of sustainability -- economic, environmental and social considerations -- decision-makers can foster redevelopment projects that maximize the benefits to the community and to ensure the long-term use and value of the site.

Progress to date in Indiana

While Indiana does not have a specific program related to sustainable redevelopment of sites, the Indiana Brownfields Program does recognize the value of this concept and incorporates it in various brownfield redevelopment incentives. For example, in general scoring of grant and loan applications, greater consideration is placed on projects with comprehensive end use plans, especially those that indicate aspects of sustainable development. Projects that are committed to green building or energy efficiency building standards receive additional points during the evaluation process. The Program also values those Comprehensive Local Environmental Action (CLEAN) network communities that are designated such through an Indiana Department of Environmental Management (IDEM) program. Furthermore, there is a "forgivable" component to brownfields low-interest loans for program participants that meet cleanup and remediation goals per specified criteria that have sustainable elements.

The state is evaluating its brownfields program, looking for ways to make it even more effective. The evaluation may identify opportunities to further promote the sustainable redevelopment of brownfield sites through financial or other incentives.

There are a number of other programs and initiatives through which the state is sharing information about sustainable design features and management practices:

- The IFA, through its the Brownfields program, works closely with IDEM and its Office of Pollution Prevention and Technical Assistance to market information and incentives related to pollution prevention and resource consumption reduction.
- A newly-created Office of Energy is responsible for administering various energy related grant programs, including the Renewable Energy Demonstration Project Grant Program and the Alternative Energy Systems Grant Program.
- State resources are available through IDEM's Office of Pollution Prevention and Technical Assistance to finance projects that identify or implement energy efficiency technologies.

The Pilot Shovel Ready Program is a new state program created to help communities certify sites as "ready for development." Shovel Ready is designed to ultimately help companies locate and develop a property site quickly. This provides a competitive advantage for Indiana communities and will help attract businesses to sites in the state. The elements of the Pilot Shovel Ready Program are:

- Help local communities prepare sites ready for development by pre-permitting a site as much as possible.
- Certify sites to help companies more easily navigate the selection and permitting process;
- Generate a list of remaining permits necessary for a specific site.
- Help fast track the remaining state, federal and local business/industry specific permits.

Applications to have sites certified under the Pilot Shovel Ready Program are now being accepted; the application deadline is May 15, 2006.

Best Practices in Other States

The state of Minnesota implements a Sustainable Development Initiative, which is a collaboration of business, government and civic interests to promote policies, institutions and actions that ensure long-term environmental, economic and social well-being. The initiative aims to incorporate as many environmentally sustainable redevelopment options as possible, including: reuse/conservation of land, creation and preservation of affordable housing, strengthening and diversifying neighborhoods, integration of open space and green space, improved water quality, energy conservation and green building practices. The state also

has developed a loan program which helps finance redevelopment that is cleaner and greener by providing loans to small businesses that purchase new equipment that meets or exceeds environmental standards.

The state of Wisconsin is working to foster the sustainable redevelopment of brownfield and infill sites through number of means, including education and outreach and transfer of best practices. The state shares information on sustainable practices on its website, and has partnered with U.S. EPA and other organizations to sponsor conferences and workshops on planning tools and green redevelopment of sites. The city of Milwaukee is a leader in land revitalization and the sustainable reuse of brownfields. The city developed Sustainable Design Guidelines for the Menomonee River Valley, a large industrial area west of downtown. Tax increment finance districts are used to support revitalization projects. The city has joined with others to form several partnerships including the Milwaukee Urban Forest Program and the Milwaukee Green Team. Some success stories include: improved air quality, reduction of energy use, improved storm water management, the first green public housing building, and several green public school spaces.

The Clean Michigan Initiative (CMI) is a \$675 million dollar bond approved by Michigan voters to improve and protect the state's water resources, parks, and urban areas. A total of \$335 million was set aside for brownfield redevelopment initiatives. CMI funds are also used for state and local park projects and waterfront revitalization projects, and to capitalize a Small Business Pollution Prevention Assistance Revolving Loan Fund. The city of Detroit is presently developing guidelines for the sustainable redevelopment of the East River district, an area adjacent to the Detroit River that largely comprised of Brownfield sites. The guidelines will be used by the city in RFPs for redevelopment of city-owned sites and by the Planning Department in reviews of proposed redevelopment projects. The Southeast Michigan Sustainable Business Forum is a resource for the development and implementation of sustainable business practices. The Forum's purpose is to provide a learning network to member companies aimed at raising awareness, developing programs, and promoting successes of the Triple Bottom Line (economic prosperity, environmental quality, and social equity) of business sustainability. One of the Forum's workgroups is focused on sustainable land use, including brownfield redevelopment, greenfield preservation, and smart growth.

Ohio voters in 2000 approved a statewide Clean Ohio Fund. The Legislature created four funding programs, each designed to carry out one of the original objectives for the Fund:

- The Clean Ohio Green Space Conservation Program helps to fund preservation of open spaces, sensitive ecological areas, and stream corridors.
- The Clean Ohio Agricultural Easement Purchase Program supports the permanent preservation of Ohio's most valuable farmland through the purchase of development rights.
- The Clean Ohio Trails Fund works to improve outdoor recreational opportunities for Ohioans by funding trails for outdoor pursuits of all kinds.
- The Clean Ohio Revitalization Fund supports the cleanup of polluted properties so that they can be restored to productive uses.

Of the \$400 million available through the Clean Ohio Fund, half is allocated to brownfield redevelopment and related urban revitalization. Local governments, other public agencies and non-profit organizations are eligible to apply for grants or low-interests loans, with local match likely required for grants. Revenue will be generated through the sale of bonds, which will provide a permanent, dedicated funding mechanism for these initiatives.

The state of Pennsylvania has several programs to promote sustainability. The state's Land Recycling Program has four cornerstones: uniform cleanup standards based on health and environmental risks, standardized review procedures, releases from liability, and financial assistance. The Green Opportunities for Brownfields connects the state's land recycling goals with its conservation planning, watershed restoration, greenway and recreational initiatives. Pennsylvania has several financial incentives available for

brownfields including an Industrial Sites Clean-up Fund, a Brownfield Inventory grant program, an Industrial Sites Reuse program, an Infrastructure Development program, a Keystone Opportunity Zones program, and a Job Creation Tax Credit program. In addition to these programs, the state has developed a Brownfield Action Team which serves to enhance interaction between the Department of Environmental Protection and local communities by creating a single point of contact within the DEP for priority brownfields redevelopment projects.

U.S. EPA has developed several programs and tools at the national level aimed at fostering the sustainable redevelopment of brownfield and infill sites. Sustainable Management Approaches and Revitalization Tools-electronic (SMARTe) is a joint effort of the U.S.-German Bilateral Working Group, the U.S. Environmental Protection Agency, and the Interstate Technology Regulatory Council Brownfields Team. The tool is intended to be used by brownfield project stakeholders for assessing market and non-market costs and benefits of redevelopment options, clarifying both private and public financing options, evaluating and communicating environmental risks, and easing access to pertinent state-specific information related to specific projects. SMARTe provides the analytical tools needed to implement and integrate each component of the decision process.

The Great Lakes Region Sustainability Funds, LLC was formed in July 2002 to help address the funding needs of redevelopment and environmental projects in the Great Lakes region. The barriers to redevelopment of brownfields are often difficult to overcome -- upfront costs of remediation and the organizational expertise and predevelopment work that a project needs to complete before ground is even broken on infill development. The Great Lakes Funds were developed with this in mind. Using low interest loans and providing New Markets Tax Credits investment opportunities will create the funding necessary to move redevelopment projects along. The Fund managers provide technical assistance where needed. The Funds have created two subsidiary funds to address the divergent needs of environmental problems in the region: the Great Lakes Redevelopment Initiative Fund I, and the Great Lakes Pollution Prevention and Energy Efficiency Fund.

The Leadership in Energy and Environmental Design (LEED) program is a green building rating system sponsored by the U.S. Green Building Council (USGBC). The program is a voluntary consensus-based set of national standards for measuring the sustainability of sites and buildings. The USGBC is now working with two partner organizations to develop standards for determining the sustainability of clusters of sites or neighborhoods. LEED criteria are potentially useful for helping to determine how sustainable is a proposed redevelopment plan. It may be possible to use LEED criteria in determining eligibility for certain financial or process incentives for sustainable practices. For example, the city of Chicago is now implementing a "green permits" program under which building permit applications for sustainable site/building projects are processed on an expedited basis. LEED criteria are used to determine how "green" is the proposed building. Projects that are designed to LEED standards or better (and also meet certain city requirements) will get permitted in just 6 weeks -- at least 2 months faster than the average permit process.

Implementation options

Following are possible approaches which could be pursued to promote sustainable brownfield/ infill redevelopment projects. These ideas will be discussed during one of the breakout sessions at the Coastal Connections Land Use Roundtable.

- F1. Include sustainability considerations in site assessments. For brownfield sites, incorporate sustainability considerations into site assessments. Site assessments are one of the first steps for any brownfield redevelopment. This process could be expanded so that the site assessment includes assessing the site not only for its past use and contamination, but also for its potential future uses and optimal sustainability practices. This would encourage communities and developers to consider at the

outset of planning what sustainable elements can be incorporated into the site, and could help guide some future restoration and reuse decisions.

- F2. State brownfield grant and loan programs. Fine-tune state brownfield grant and low interest loan programs to create stronger incentives for committing to the sustainable redevelopment of sites. Among the specific options that could be considered could be:
- Ranking criteria used to determine how available funds will be allocated could be adjusted to give more points to projects where applicants commit to green buildings (potentially using LEED criteria to confirm what is a "green" building);
 - Ranking criteria could be adjusted to give more points to projects where applicants commit to sustainable storm water management features, such as rain gardens, cisterns, green roofs, or permeable pavement;
 - For grants with match requirements, local match requirements could be reduced by a small increment for projects where the applicant commits to incorporating sustainable features in the redevelopment.
- F3. Sustainable Indiana Fund. Seek approval from Indiana voters on programs to make greater amounts of public funding available for sustainability initiatives, potentially modeled after the Clean Michigan Initiative and/or the Clean Ohio Fund. This could be done on a statewide basis, or a regional basis (e.g., through Regional Planning and Development Districts), or a local basis.
- F4. Expedited permits. Expand the use of expedited permitting processes like "Shovel Ready" and Chicago's green permits program to encourage sustainable site and building features. At the state level, the match requirements for certification under the Shovel Ready program could potentially be adjusted such that the match amount required would be lower if the local jurisdiction commits to sustainable redevelopment of the site. At the local level, communities processing building permits or PUD applications could adjust the sequencing of their work to put applications for sustainable projects "at the top of the pile" so such applications are processed on an expedited basis. For developers, time is money, and expedited processing of permits and associated paperwork is potentially a valuable incentive for green practices which could be offered at relatively low cost.
- F5. Tools and data for project planning. Provide additional or better tools and data to foster sustainable redevelopment of sites. For example the Center for Neighborhood Technology has developed a Green Infrastructure Calculator, which quantifies the life cycle costs and benefits of various sustainable features, such as green roofs, permeable pavements, and vegetated swales. This could potentially accelerate the adoption of sustainable practices by facilitating planning work and reducing uncertainty about costs and benefits. Useful tools could potentially be provided to planners, developers, government officials and community members via IFA and IDEM websites.
- F6. Productive Partnerships. Explore partnerships which could be valuable in terms of sharing technical information and/or leveraging funds. For example, the state and/or local units of government could develop memoranda of understanding with the Delta Redevelopment Funds LLC to align criteria and synchronizes processes to make it easier for communities and/or developers to simultaneously participate in public and Delta Redevelopment programs. Partnerships could also be considered with universities to provide planning and/or engineering technical assistance to communities or developers.
- F7. Private-sector financial incentives. Work with financial institutions to create private-sector financial incentives for sustainable practices. For example, the Indiana Finance Authority could potentially work with Indiana banks to examine development costs, operational costs, and risks for green sites as compared to conventional sites. Sustainable sites are likely less expensive to operate over time (e.g., the buildings may be more energy-efficient) and may pose relatively less environmental risks, and thus banks could potentially offer a slightly lower lending rate for "green" sites/ projects as compared to

conventional sites. A green mortgage product or loan program could be a significant incentive for green buildings and sustainable sites.

- F8. Tax Increment Financing. Create Tax Increment Financing (TIF) areas aimed at revitalizing under-utilized areas, incorporating into the district guidelines provisions for using TIF funds to subsidize sustainable features (such as green roofs) that are beneficial to the community but may have increase up-front costs for developers.
- F9. Storm water fee systems with rebates. Establish local or regional storm water fee systems to generate funds for operation and maintenance of storm water infrastructure and to help fund sustainable storm water management features. The fee system can be set up to provide rebates or fee reductions for property-owners that implement storm water management measures. The city of Minneapolis has a storm water fee system of this type.
- F10. Property tax incentives. Provide property tax incentives for sustainable features, such as a 5- or 10-year freeze of assessed values if the property has sustainable features (e.g., the building is a LEED-certified building).
- F11. Participative planning processes. Use participative planning processes to gather input from neighbors and community members on how they would like to see brownfield and infill sites redeveloped. State funding requirements and/or local approval processes could include requirements for such effective community involvement, which potentially would help foster all the components of sustainability -- benefits to the environment, the local economy and to the people who live in the area.

Key web resources

<http://www.in.gov/ifa/environment/>
<http://www.in.gov/idem/land/Brownfields/>
www.pca.state.mn.us/cleanup/Brownfields.html
<http://www.dnr.state.wi.us/org/es/science/landuse/greenmakeover/>
www.michigan.gov/deq/Brownfields
www.depweb.state.pa.us/ocrlgs/site/
<http://dnr.wi.gov/org/es/science/landuse/greenmakeover/>
<http://www.dnr.state.wi.us/org/aw/rr/financial/index.htm>
<http://www.delta-institute.org/glrsf/greatlakesfunds.php>
<http://www.epa.gov/compliance/cleanup/redevelop/er3/>
<http://www.energystar.gov/>
www.usgbc.org
<http://greenvalues.cnt.org/calculator>
<http://www.americanforests.org/productsandpubs/citygreen/>
<http://www.smartec.org/smartec/home/index.xml>
<http://www.bmpdatabase.org/>
www.nipcc.org/environment/sustainable/content.htm#Development
<http://www.sustainable.org/>
www.nalgep.org/issues/Brownfields