

NEWS WAVES



A Sea Grant Extension Newsletter for Economic Development and Environmental Enhancement

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Newswaves is designed to foster an understanding of environmentally enhanced economic development. It is written for development professionals and public officials in Northwest Ohio. Newswaves is produced quarterly by the Ohio Sea Grant College Program, a partnership of government, universities, industry, and the public to help citizens understand and sustainably use our Great Lakes resources for long-term economic growth.



Brownfields & Greenfields

by Mary Bielen

Throughout Ohio, cities and their neighborhoods face the challenge of redeveloping "brownfields" -- unused, obsolete, and often abandoned industrial properties with known or suspected environmental contamination. The term "brownfield" has been coined as an antonym for "greenfield" or undeveloped land in the path of ensuing development. Proponents of brownfield revitalization point to many potential benefits of reuse of these properties -- chief among these is countering greenfield development. This reduces urban sprawl resulting in curtailment of traffic congestion, air quality problems, and other forms of environmental degradation. Also, by making use of existing roads, utilities, and other infrastructure, brownfield reuse optimizes previously spent public dollars and alleviates the use of tax revenues to extend the same services to new development in outlying areas.

Brownfield redevelopment makes sense for the central city, too. Economic benefits include job creation and employment for dislocated workers and minority populations, and additional tax revenue. Environmental cleanup and alleviation of urban blight stimulates central city revitalization. For example, brownfields located along urban waterfronts and adjacent to downtown centers have been redeveloped for retail and entertainment, i.e., the Cleveland Flats area. This spurs additional economic activity.

Although potential benefits are great, so are existing barriers. Uncertainty regarding liability for contamination, remediation cost remediation process, and level of cleanup required are the most often cited factors. Due to contamination in the ground, buildings and other structures, and possibly in groundwater or adjacent surface water, considerable remediation is required by state and federal environmental agencies and financial institutions before redevelopment can occur. Environmental assessments must be conducted to determine the cost of remediation, adding time and costs to the project. And when costs of remediation are known they can often be substantial, often exceeding the value of the property. This further discourages redevelopment and makes greenfield locations more desirable.

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Local governments need to develop the institutional capacity to be proactive in addressing the uncertain regulatory climate of brownfield redevelopment.

Acting as brokers by helping interested buyers find abandoned properties, assisting with regulatory interpretation, and streamlining inter-agency cooperation can counteract some of the reservations of buyers, sellers, and lenders involved in a brownfield transaction.

The magnitude of the effect of these uncertainties on industrial site location and expansion decisions, however, is clouded. Some have noted many urban areas with current environmental liability problems have been declining economically for decades, even before the advent of state and federal cleanup regulations. Relative to other redevelopment concerns, potential environmental liability may have only marginal negative impacts on industrial real estate markets. Structural problems with existing buildings and lack of access to major transportation routes, for example, can make a site undesirable for industrial use even if it is not contaminated. There are other reasons, too, why inner city brownfields may not be considered for industrial uses. Relocating and expanding industrial businesses are often looking for sites with a campus-like setting complete with parking for employees. Developing similar sites in the urban core often requires assembling several parcels of land so a comparable size lot can be offered. The process can be lengthy; giving greenfield sites a comparative advantage. Also, based on brownfield redevelopment trends in other cities, the most optimal reuse for some former inner city brownfields has been commercial, service, and residential rather than industrial.

Local governments need to develop the institutional capacity to be proactive in addressing the uncertain regulatory climate of brownfield redevelopment. Acting as brokers by helping interested buyers find abandoned properties, assisting with regulatory interpretation, and streamlining inter-agency cooperation can counteract some of the reservations of buyers, sellers, and lenders involved in a brownfield transaction. In 1996, the Northeast-Midwest Institute, with support from the U.S. Environmental Protection Agency, undertook a case study analysis of twenty brownfield projects across the country and concluded that public sector intervention, especially at the local level, moved projects forward in a timely and cost-effective manner. Although each of the twenty projects differed, the most critical ingredient for success was the presence of a strong local government that took the initiative to confront their brownfields. (See "Casey At Bat In Toledo" on page 4.)

Although prudent reuse of contaminated central city properties may discourage development of industrial sites in greenfield areas, the extent to which this will occur is unclear. The more direct benefits of finding new uses for these old industrial properties will more likely accrue to the inner city as it is revitalized. Some metropolitan areas are studying changes in their land use patterns by analyzing changes over time as documented in aerial photography and using the results as base information for sophisticated geographic information systems. Understanding the relationship between inner city redevelopment and greenfield development will require additional research and analysis of development patterns of land adjacent to metropolitan centers in relation to land use changes in the urban core. NW

For More Info

Great Lakes Environmental Finance Center (EPA Region 5)

The Center is financed by the U.S. EPA and based at Cleveland State University. Technical assistance to cities, businesses and private sector interests on financing brownfield redevelopment is a major focus. Visit their web site at <http://www.csuohio.edu/glefc/> for more information. Contact Donald Iannone, Executive Director, Great Lakes Environmental Finance Center, Urban Affairs Building, Room 215, Cleveland State University, Euclid Avenue at East 24th Street, Cleveland, OH 44115. Phone: 216-687-6947. NW

Ohio's Voluntary Action Program

Ohio EPA has developed this program as a way for owners of contaminated properties to voluntarily clean up their sites and be released from state civil liability. Visit their web site at <http://www.epa.ohio.gov/derr/volunt.html> to learn about Ohio's financial assistance programs. Contact Jenifer Kwasniewski, Manager, The Voluntary Action Program, Ohio EPA / DERR, P.O. Box 1049, Columbus, Ohio 43216-1049. Phone: 614-644-2924. NW

Brownfields Handbook

Brownfields: A Comprehensive Guide to Redeveloping Contaminated Property by Todd S. Davis and Kevin D. Margolis is the most extensive, yet practical reference available on brownfields redevelopment. Published by the American Bar Association, it is written for both public and private sector professionals involved with brownfields. This 700-page handbook includes contributions from a variety of professional disciplines. It may be ordered on-line for \$149.95 at <http://www.abanet.org/abapubs/> or contact ABA Service Center, P.O. Box 1092, Chicago, IL 60611. Phone: 800-285-2221. NW

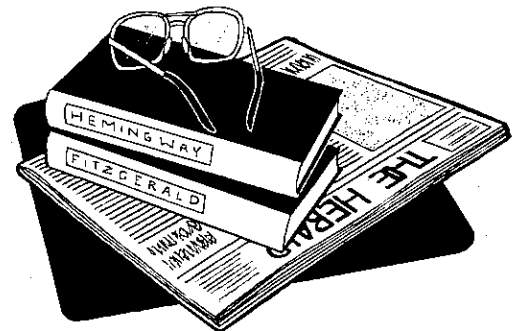
Brownfield News

Brownfield News is the primary national magazine for keeping current with the latest brownfield breakthroughs. Each issue includes feature stories and a focus story on what a major city or region is doing in the brownfields arena. You may subscribe on-line (\$79.95 for this bi-monthly publication) at their web site <http://www.brownfieldnews.com>. Also view the current issue, search back issues, and subscribe to a brownfield news e-mail listserve. Contact Brownfield News, P.O. Box 0484, Arlington Heights, IL 60006. Phone: 847-870-8208. NW

The Northeast-Midwest Institute

The Institute is a nonprofit public education organization concerned with the region's economic vitality and environmental quality. Two of their noteworthy publications are: *Coming Clean for Economic Development: A Resource Book on Environmental Cleanup and Economic Development Opportunities* by Charles Bartsch and Elizabeth Collaton contains an in-depth discussion of brownfield reuse; and *Lessons from the Field: Unlocking Economic Potential with an Environmental Key* by Edith M. Pepper discusses 20 brownfield case studies. Both publications are on-line at their web site <http://www.nemw.org/>. Contact Northeast-Midwest Institute, 218 D Street, S.E., Washington, D.C. 20003. Phone: 202-544-5200. NW

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Local Happenings

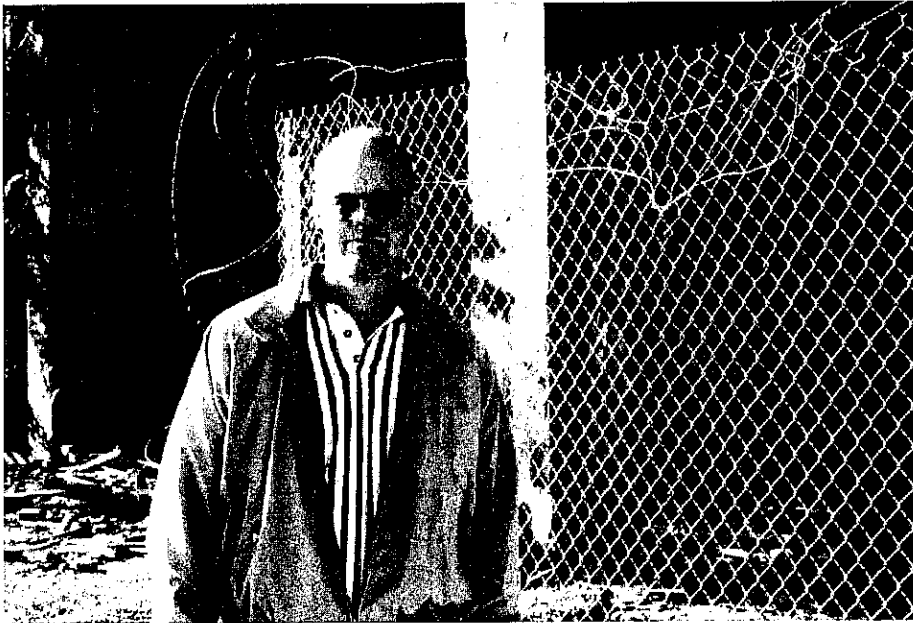
Designed to support inventive two-year explorations and demonstrations of brownfields solutions on the local level, the "Pilots" are expected to be model communities able to share with others what spurs local brownfield cleanup and redevelopment.

Casey "At Bat" in Toledo

Meet Casey Stephens, Brownfields Project Coordinator for the City of Toledo Department of Environmental Services. Casey started in this newly created position in July 1998, thanks to a U.S. EPA Brownfields Assessment Demonstration Pilot Grant. This \$200,000 award to Toledo helps fund this coordinator's position as well as a number of other strategies designed to remediate and redevelop the city's brownfields. Casey comes to his post with both public and private experience. Prior to working the last nine years for the monitoring department of a local environmental services company, Casey had formerly worked for Toledo's Department of Environmental Services. "It's great to be back and I think having both public and private sector experience is going to be a big help in this job."

When Toledo received the grant in July 1998, it joined more than 200 other cities and communities who, since 1995, have been recipients of these awards. All Pilot Grants are for \$200,000 and communities must submit an application in order to be considered. Selection is on a competitive basis. According to Casey, "I really see my role as coordinating Toledo's brownfield efforts and this grant is going to help us do that." Designed to support inventive two-year explorations and demonstrations of brownfields solutions on the local level, the "Pilots" are expected to be model communities able to share with others what spurs local brownfield cleanup and redevelopment.

A 1992 study conducted by the University of Toledo showed two-thirds of the commercial/industrial real estate transactions conducted in the City were riddled with environmental concerns, and twenty-five percent of the transactions conducted over the previous year were aborted because of contamination issues. The average value of an aborted transaction was \$355,000 and the average number of jobs lost per transaction was 20. Although Toledo has a number of brownfield redevelopment projects in the works, the City realizes it needs to develop a formal process for addressing remediation and redevelopment of these properties.



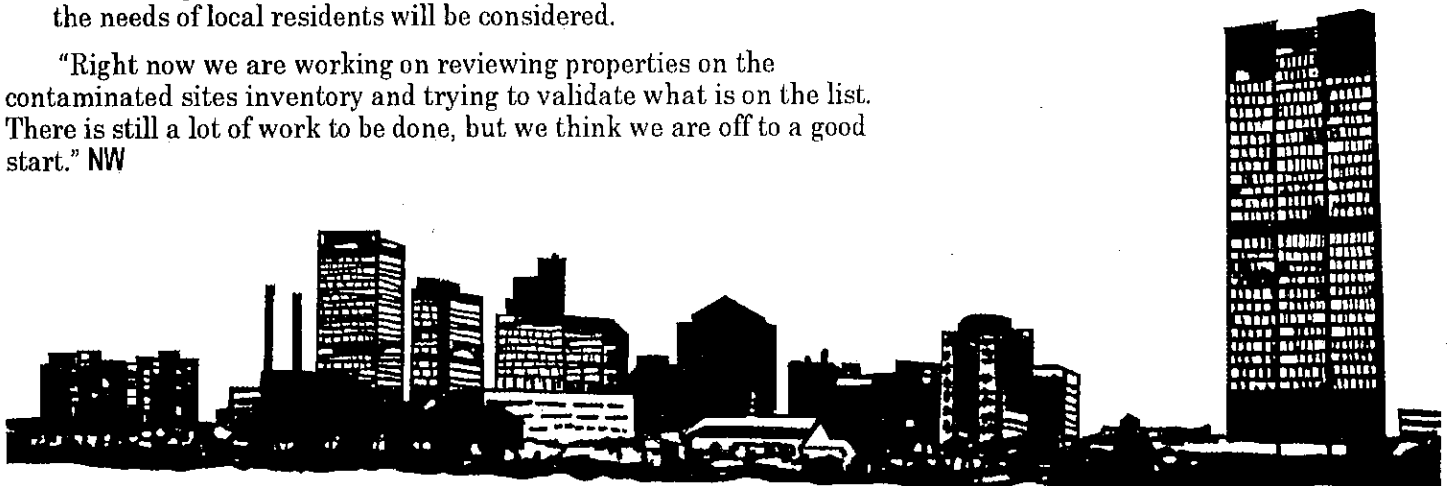
Casey at Autolite Site, Toledo

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- Prioritizing sites from the City's inventory of more than 100 contaminated properties (or properties believed to be contaminated) and creating a complete brownfield sites inventory to more fully identify redevelopment potential;
- Conducting environmental assessments on prioritized sites from the City's existing inventory;
- Re-establishing the Brownfields Group, an advisory group composed of public and private agencies that sets cleanup and land use goals;
- Identifying technical and financial assistance and other tools to support redevelopment of brownfields; and
- Conducting community outreach activities for each brownfields site so the needs of local residents will be considered.

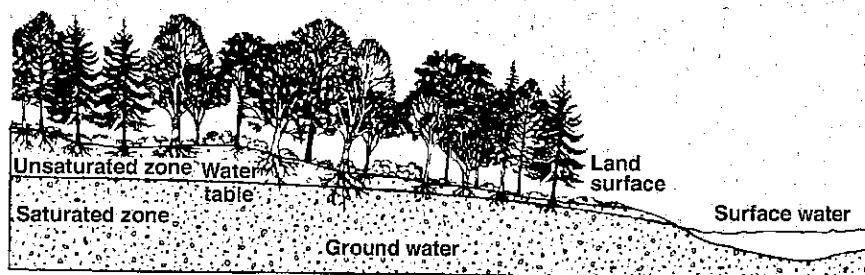
"Right now we are working on reviewing properties on the contaminated sites inventory and trying to validate what is on the list. There is still a lot of work to be done, but we think we are off to a good start." NW



When soil contamination is present in sufficient amounts it will infiltrate the groundwater below it. This can effect local economic development, which is dependent on the quality and quantity of available groundwater.

It is estimated that one-fourth of manufacturing water demand in the Great Lakes states is supplied by groundwater resources.

Waterwise



Source: U.S. Geological Survey

Understanding Groundwater Contamination

Groundwater begins when rain or snow soaks into the soil and moves downward until all the open spaces in the soil and rock are completely filled or saturated -- much like a sponge holding water. The remaining rainfall or snowmelt then flows as runoff over the ground surface into streams, rivers, and lakes or evaporates into the atmosphere. The highest level of this groundwater is known as the water table.

Groundwater is constantly moving and flows from higher to lower elevations. Generally it moves very slowly with its flow measured in terms of feet per day, but there is great variability in its speed. It then discharges wherever the water table intersects with the ground surface.

When soil contamination is present in sufficient amounts it will infiltrate the groundwater below it. This can effect local economic development, which is dependent on the quality and quantity of available groundwater. It is estimated that one-fourth of manufacturing water demand in the Great Lakes states is supplied by groundwater resources. The economic costs to businesses and local communities due to loss of property values, tax revenues, and business development when groundwater contamination is present, can be monumental. Add the high cost of groundwater cleanup, which makes redevelopment of contaminated properties costly and encourages their abandonment.

Protecting groundwater resources is also important to 5.4 million Ohioans, approximately half the state's population, who depend on groundwater for their drinking water. Ohio EPA's Wellhead Protection Program is designed to safeguard public drinking water supplies by preventing, detecting, and remediating ground water contamination in areas around public water supply wells. For more information visit Ohio EPA's Division of Drinking and Ground Waters website at <http://www.epa.ohio.gov/ddagw/ddagwmain.html>. NW

Web Surfing

Regional Online Brownfields Information Network (ROBIN):

<http://www.glc.org/projects/ROBIN/ROBINhome.html>

This site provides the most comprehensive linkage system to other brownfield web sites with literally hundreds of possibilities. One unique capability is searching a database for brownfield properties for sale or lease. The Great Lakes Commission developed this site as a resource for all Great Lakes States and Canadian Provinces. **NW**

U.S. EPA's Brownfields Homepage:

<http://www.epa.gov/brownfields/>

This site provides a variety of informational features including *Brownfield Pilots* and *Showcase Communities, News & Events, Tools and Contacts* for Brownfields Project Managers, and *Laws and Regulations*. Visit this site to find out about the upcoming National Conference on Brownfields - "Brownfields 98" being held November 15-18, 1998 in Los Angeles. Registration is free but space is limited. Browse here for other EPA topics and links to sites of related interest including EPA's Region 5 (the Midwest) homepage. **NW**

The Institute for Responsible Management:

<http://www.instrm.org/>

Those interested in finding out more about EPA Brownfield Pilots and what each site is working on will find this web site's *database* of interest. Here you can also find an *on-line newsletter* and *links to other brownfield web sites*. There are special *resources for EPA Pilots*. The site is maintained by the Institute For Responsible Management, a nonprofit organization conducting research and disseminating its findings to EPA Brownfields Pilot communities, to states in which pilots are located, and to other stakeholders. **NW**

Smart Growth Network:

<http://www.smartgrowth.org/topics/smartdevelopment.html>

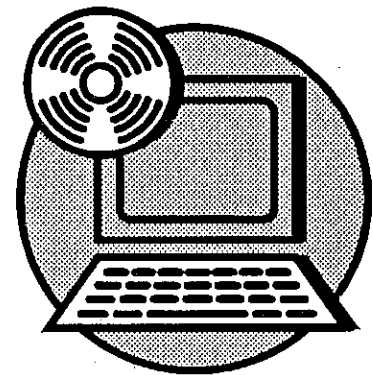
This web site contains the document "*A Priority Setting Tool for Brownfields Redevelopment: An Integrated Approach for Brownfields Redevelopment*." Those looking for how other cities developed systematic and targeted approaches for redeveloping brownfields will find this worthwhile reading. Smart Growth is a nationwide network coordinated by the U.S. Environmental Protection Agency's (EPA) Urban and Economic Development Division. **NW**

The Brownfields Non-Profits Network:

<http://www.brownfieldsnet.org/>

A coalition of 27 nonprofit organizations established this site as a resource for community groups and organizations undertaking brownfield remediation. You can ask *questions on-line*, *review case studies* and *link to other brownfield web sites*. Brownfield financing information is also included. **NW**

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Resources from

Extension & Sea Grant

Fact sheets on brownfield redevelopment and groundwater protection are available from Ohio State University Extension and Ohio Sea Grant. Extension fact sheets may be obtained from your local county OSU Extension office or from the web site "Ohioline" at <http://ohioline.ag.ohio-state.edu>. Sea Grant fact sheets are available from Ohio Sea Grant Extension Offices in Toledo (419-249-6554) and Port Clinton (419-635-4021, Ext. 6217) and can be found on the Ohio Sea Grant web site at <http://www.sg.ohio-state.edu/osgrant/f-osgrant.html>.

Joint Extension and Sea Grant Fact Sheets:

Brownfields and Their Redevelopment is a concise overview of the issues involved with redeveloping contaminated properties. This fact sheet directs the reader to a number of possible funding sources for remediation and redevelopment. The need for developing local strategies and programs to combat a community's brownfield challenges is discussed.

Extension Fact Sheets:

Groundwater Resources by County are available for many Ohio counties. Topics include aquifers, well yields, and groundwater availability, levels and quality.

Environmental Info for Developers is available for each of Ohio's counties. These profiles provide an easy reference to environmental information in Ohio. Topics include solid waste facilities, brownfields, ambient air quality, water resources, and wastewater treatment activities.

Sea Grant Fact Sheets:

Lake Erie Water Quality: Past, Present and Future (FS-046) gives an historical prospective on the Lake's water quality. It discusses current pollution problems, toxin effects, and point and non-point pollution sources.