

INTERNATIONAL
BROWNFIELDS
EXCHANGE
2000 - 2002

The Nature *of* Possibility

EXPERIENCES
IN RISK-BASED
DECISION MAKING



Hamilton, Ontario, Canada



Buffalo, New York, USA



Vancouver, British Columbia, Canada



Ruhr Region, Germany



Rothwell, Leeds, United Kingdom

August 2002

Dear Friends,

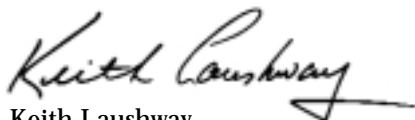
Sustainable redevelopment of former industrial areas is one of the most pressing urban issues and opportunities of our time. Many communities recognize the importance of addressing the obstacles to regeneration of old industrial sites and significant progress is being made on many fronts. Other cities and towns are just getting started.

We are pleased to present this summary of the results of the 2000 - 2002 International Brownfield Exchange. In this publication you will find the results of workshops that occurred between October 2000 and November 2001 in communities actively engaged in the revitalization of former industrial lands. You will be able to determine the common elements and best practices that characterize international state of art approaches to brownfield redevelopment as well as the unique elements that respond to local economic, environmental, legal, and social conditions.

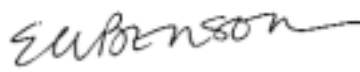
On behalf of everyone who participated in the activities of the International Brownfield Exchange over the past 6 years, we extend our thanks to our international partners. In particular we appreciate the support of Environment Canada, The United States Environmental Protection Agency, and Groundwork Trust UK for the 2000 - 2002 program and preparation of this report. In addition, we want to express our appreciation to our many local sponsors for their support of the workshops.

We hope you find this publication timely and helpful. As always, we welcome your comments and suggestions.

Sincerely,



Keith Laushway
Chair



Beth Benson
Project Manager

In 1998 the Waterfront Regeneration Trust launched the International Brownfield Exchange with support from the US EPA, the German Marshall Fund of the United States, and Environment Canada. Since then many public agencies and private corporations have supported the program. The objectives of the program are to exchange information, to establish new working relationships, and to develop, test and communicate a set of best practices for sustainable brownfield redevelopment.

Over the past 4 years more than 1,000 brownfield practitioners from the United States, Canada, the Netherlands, Germany and Spain were involved in the Exchange, participating in professional development and workshops in five cities in Europe and North America. Participants included landowners, investors, banker, regulators and community development specialists.

Find out more about the International Brownfield Exchange by checking our web page: www.waterfronttrust.com or contact us at (416) 943-8080.



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Experiences In Risk Based Decision Making

INTERNATIONAL BROWNFIELDS EXCHANGE 2000 - 2002

Lessons and International Best Practices

Around the world, cities are recognizing the value of reusing former industrial and other derelict lands, and the importance of seizing opportunities to transform them into new uses – green space, residential communities and job-producing sites.

A growing number of communities in Europe, Canada and the United States have been successful in employing innovative ways to redevelop brownfield sites using risk-based approaches. However, public perceptions about the risks posed by site conditions, implications concerning “who pays” and long term care, as well as difficulties in securing brownfield financing have presented deterrents to effective revitalization of many derelict sites, particularly within North America.

There are significant obstacles to overcome and there are several important questions that are common to many redevelopment initiatives:

- What are the real risks associated with existing environmental conditions?
- What risks would be associated with a new land use?
- How clean is clean enough? What are the costs of site remediation?
- What are the viable site restoration methods?
- Is that new land use consistent with community objectives?
- What are the regulatory requirements and how long does it take for review and approval?
- Can financing be secured if environmental monitoring and control measures are required?

In collaboration with Groundwork Trust UK, the U.S. Environmental Protection Agency and Environment Canada, the Waterfront Regeneration Trust organized

More than 300 people representing a variety of organizations participated in the 2000-2002 IBE Program, including:

Ater Wynne LLP, USA
Beak International, Toronto, Canada
Buffalo Economic Renaissance Corporation, USA
City of Copenhagen, Denmark
City of Chicago, USA
City of Hamilton, Canada
City of New York, USA
City of Buffalo, USA
City of Niagara Falls, USA
County of Niagara, USA
City of New York Housing Preservation & Development, USA
Common Good Planning Center, USA
Cheshire County Council, UK
East Manchester Urban Regeneration Co, UK
Environment Canada
Forestry Commission, UK
German Environmental Agency, Germany
Groundwork Trust UK
Groundwork Macclesfield & Vale Royal, UK
Illinois Environmental Protection Agency, USA
Institute for European Environmental Policy
Lancaster University
Northeast-Midwest Institute, USA
Projekt Ruhr, GmbH, Germany
Laganside Corporation
Mersey Basin Campaign, UK
Pratt Institute Center for Community & Environmental Development, USA
University Of Liverpool School of Biological & Earth Sciences, UK
University of Manchester, Centre for Urban & Regional Ecology, UK
Urban Mines Ltd
U.S. Environmental Protection Agency, USA
Waterfront Regeneration Trust, Canada

Turning Brownfields into Economic Generators Chicago's Experience

Like many other Great Lake cities, the City of Chicago has experienced the relocation of many industries, leaving behind a legacy of abandoned industrial lands. There are an estimated 2,000 brownfield sites in Chicago.

With the continued growth and prosperity of the city and limited developable land, the reuse of former industrial lands has become a priority in Chicago.

In 1993, the City began the Chicago Brownfields Initiative — to acquire, assemble, and rehabilitate properties and return them to productive reuse — with a pilot cleanup and redevelopment program. The program has since made significant progress in transforming derelict industrial sites into vibrant economic generators. By early 1999, the City had either remediated or overseen 33 brownfields with a total area of over 50 acres. These sites have been redeveloped for industrial/commercial uses, generated new jobs, and the established the groundwork for continued innovation.

What is the secret to Chicago's success?

Public policies have been created and implemented by the City of Chicago that promote brownfield redevelopment. They offer risk-based cleanup standards, liability control and protection, employment opportunities associated with cleanup and redevelopment, as well as tax breaks and other incentives.

The City of Chicago, through the Chicago Department of Environment (DOE), prepares former industrial lands for future development. Focus is placed on those sites with high potential for redevelopment that would not be successful without the City's assistance in site cleanup and preparation. Environmental conditions of the site are reviewed by the DOE and a redevelopment strategy is proposed. Working with an environmental consultant, appropriate cleanup standards are determined using the Illinois Environmental Protection Agency's Tiered Approach to Corrective Action Objectives.

The City of Chicago has successfully secured funds for brownfield cleanup and redevelopment through loans and grants from the Federal Department of Housing and Urban Development (HUD), through litigation settlements, and corporate funds and through grants from USEPA.

Gaining site control of properties can be a barrier to brownfield redevelopment. The City of Chicago has used various tools to acquire properties for redevelopment including demolition lien foreclosure and a Tax Reactivation Program (TRP) to acquire tax delinquent properties. In addition to these tools, the City has used Municipal Environmental Lien and a Garbage or Debris Removal Lien, and Eminent Domain to further property acquisition and improvement.

a series of seminars and workshops in 2000-01 to bring together practitioners and community leaders to consider these questions in the light of international best practice in risk-based decision-making.

The first meeting was held in association with the EPA's Brownfields 2000 conference in Atlantic City, New Jersey. A small group of practitioners there met to exchange expertise and ideas concerning best practice in the application of risk assessment and risk management methods in brownfield redevelopment. A second seminar and site visits were held in Manchester, England in November 2001 in collaboration with Groundwork Trust UK and the University of Manchester. This report presents the results of this exchange program.

Atlantic City Roundtable October 13, 2000

There are more than 400,000 brownfield sites in North America. Many of these sites are being completely cleaned up and redeveloped. However, in many cases complete cleanup is not economically or technically feasible. In these cases, developing site specific criteria for restoration and employing on site management techniques can allow for cost-effective solutions that also protect human and environmental health.

Over the past five years there has been a convergence in international practices and approaches to risk assessment, including environmental, financial and human health aspects. The Site Specific Risk Assessment approach (SSRA) includes a technical assessment process and administrative instruments to calculate and use criteria based on environmental and human health protection at a specific site. Often referred as a "customized" approach, site assessment is geared to the specific physical conditions, land use and site design features of a project. The risk assessment may involve modification of one or more of the factors used in the development of generic criteria to reflect site specific characteristics, or it may involve a more comprehensive risk assessment and risk management process. Risk assessment typically involves hazard assessment, exposure assessment, and subsequent characterization of the identified risk, given proposed land use and site design.

Site specific risk assessment can be a complex, information intensive approach that requires gathering physical, chemical and biological data on the land and its environs as well as land uses. But project experience now demonstrates that for each \$1 spent on site assessment and risk management techniques, \$6-10 can be saved without compromising environmental and human health and safety. Successful projects have three features in common: high quality of site information and rigorous technical evaluations, appropriate public involvement, and guarantees of long term environmental management and financial assurance where they are needed.

A group of brownfield practitioners from the United States including representatives from Chicago, Washington, and Portland, and others from the United Kingdom, Berlin, Copenhagen, and Toronto gathered at a workshop in Atlantic City on October 13th to share their experience in the application of risk-based approaches to brownfield redevelopment. Each speaker presented case studies that pointed to lessons learned and innovative techniques that have been adopted in revitalizing derelict lands. Presentations were made by Charlie Bartsch, Northeast-Midwest Institute; Renante Marante and David Graham, City of Chicago; Gary King, Illinois Environmental Protection Agency; Malcolm Barton, UK Groundwork Trust, and Don Lush, Beak International Incorporated, Toronto. The important conclusions that emerged from the Atlantic City Roundtable are presented below.

*One size does not fit all:
practical, protective approaches
to site assessment and restoration
are available.*

There has been a change in the way regulatory agencies, owners and developers are approaching site cleanup and reuse. It is based on assessing and managing risks at former industrial sites rather than remediating to “pristine” conditions. In many communities, the public and the private sector have gained experience with containment strategies and remediation techniques that allow cost

effective solutions while protecting the health and safety of humans and ecological resources.

The United States Experience

Public policies have also been modified that have allowed thousands of cleanups in the past 2-3 years in the US. Charlie Bartsch noted that most (26) US states take a tiered approach to cleanup to allow owners to develop site-specific cleanup standards that are targeted to proposed land use and site design. This allows for a choice of cleaning to background levels, to pre-determined “generic” remediation standards, or to develop site-specific cleanup standards.

In Illinois for example, the Illinois’ Environmental Protection Agency Bureau of Land (BOL) offers communities wishing to redevelop brownfield sites, a tiered approach to corrective action. This approach:

- provides protection of human health and the environment
- replaces the “one-size-fits-all” approach
- establishes procedures for developing cleanup objectives to be used with a remediation program
- bases approvals on site use (industrial/commercial/residential) and engineering controls (eg. capping, building)

In Illinois, soil and groundwater contamination is usually managed based on the understanding that:

- the primary goal of remediation should be to protect public health and the environment
- liability concerns should not be based on the mere presence of contamination, but whether contamination is being properly managed
- land use management is an integral part of risk based corrective action

Risk-based methodologies in Illinois are used in conjunction with other programs to facilitate brownfield redevelopment. For example, one-on-one consultation services are offered. EPA staff work with site owners and municipalities to explain cleanup options, regulatory programs and liability, help municipalities secure financial assistance, and guide grant and loan recipients through investigation and cleanup processes.

Some form of “risk-based corrective action” process is in place in 16 other states. In these states, land use and risk to potential users are used to determine how clean the site needs to be. Pennsylvania’s Land Recycling Program has modified its standards for site cleanup and simplified its review process. The new standards are based on each site’s environmental risk factors and its intended use, and provide an achievable, health-based, environmentally safe approach to site cleanup. Institutional controls, such as registration of site conditions on land title and providing financial assurance for maintenance of environmental control measures, can play an important part in increasing certainty for regulators and future purchasers. Institutional controls often go hand in hand with risk management solutions.

Voluntary Cleanup Programs (VCP) aim at making brownfield reuse more attractive by establishing a streamlined process to determine how clean is clean and how to achieve it. These state programs are called “voluntary” because site owners come forward on their own initiative to work with state agencies to establish a process to address issues of legal liability, technical feasibility and proposed land use. Today, 47 of the 50 states have put VCPs in place and more than 10,000 sites have gone through these programs. New Jersey’s VCP for example, has helped to attract new users to brownfield sites (in 1998, voluntary cleanups by private parties accounted for more than \$40 million in remedial work). The Program allows for a Memorandum of Agreement (MOA) that allows a party to voluntarily investigate and clean up a contaminated site. The agreement is a non-enforcement document between the Department of Environment and the party wanting to perform the work allowing cleanup without the threat of punitive provisions. New Jersey’s Technical Regulations for Site Remediation (NJAC 7:26E) provides the regulatory framework for which remedial activities are performed. These requirements establish the minimum criteria for performing preliminary assessments, site investigations and remedial actions.

In the United States Memoranda of Understanding between project and state regulatory authorities have been a successful administrative element in encouraging site users to go ahead with site specific or risk-based approaches to redevelopment. The key

has been to define who is responsible for environmental management over time, including reporting to regulatory officials, and who pays. For more information see the Northeast Midwest’s web site for current reporting on “State of the States”, <http://www.nemw.org>.



The Niagara River connects Canada and the US

The Canadian Experience

Site-specific risk assessment (SSRA) is an established method used by Canadian regulators and practitioners to quantify and to manage risks associated with human and environmental exposure to environmental contamination. The Canadian federal government defines risk assessment as follows: “a process that evaluates the likelihood that adverse effects will occur or are occurring as a result of exposure to one or more stressors. Risk Assessment is the scientific and technical activity that makes use of a detailed evaluation of hazard and exposure potential at a particular site in order to recommend a remediation level that will meet the goals of the Site Management Strategy” (Public Works and Government Services, 2000). In some cases, SSRA represents the only viable means of allowing for cost-effective redevelopment of Canadian brownfield sites.

In Canada, the science of risk assessment has been evolving over the past decade, along with the development of the associated strategies for risk management, and the supporting regulatory framework.

Experience with SSRA has led to an improved understanding of the key factors that must be included for successful implementation:

- A supportive regulatory framework
- Technical rigour in site assessment and remedial design
- Meaningful communication and community engagement
- Economic feasibility
- Social benefit

In order for a successful SSRA to be implemented, the regulatory framework and review procedures must facilitate the implementation of SSRAs. Most jurisdictions in Canada now have a legal/regulatory framework in place in which some form of SSRA can be implemented or encouraged. The key is to ensure that the regulatory requirements are clear and that review and decision making processes are streamlined.

The second key element is technical rigour. Development of a scientifically credible and justifiable

SSRA methodology and associated site remediation/risk management strategy is a fundamental key to success. The risk assessment and management framework must demonstrate that health and safety will be protected in the short and longer term. The methodology developed must be scientifically sound.

Third, successful proponents engage stakeholders in the project from its early stages. Meaningful communication in an open and transparent manner with regulatory agencies, local politicians, landowners, residents, and other stakeholders is crucial. Communication must involve all interested parties, and allow for the concerns and interests of all groups to be considered, with the goal of developing an environmental management strategy for the project that is understood and supported.

The fourth trademark of a successful SSRA is the ability to demonstrate economic feasibility of the project. In some cases, it may be necessary to implement a long-term remedial management plan to ensure health and safety. In addition to the economic viability of the SSRA and associated remedial program, the overall economic feasibility of the project must include the costs of land acquisition, obtaining regulatory, political, and public approval, as well as any on-going operation, maintenance and monitoring costs.

One of the major issues associated with the use of SSRAs in Canada is the ability of proponents to secure financing. While the science may be rigorous, the perception of risk-based remedial strategies in the marketplace as been a deterrent to financing.

The final element in the implementation of a successful SSRA and risk management strategy is recognizing and addressing issues of social equity and acceptability. SSRAs and attendant risk management strategies will, by definition, not result in the site being “cleaned up” to meet generic criteria. The environmental strategy for the property is intimately linked to the next use as well as the location and design of the built structures associated with the project. In cases where communication with local stakeholders has been poorly executed, and/or in situations where the intended land use or site design is not supported locally,

concerns about the proposed environmental management plan can emerge as a major stumbling block for the project. In some situations the local community may conclude that they will bear the social costs of any residual environmental risk.

See our website at www.waterfronttrust.com for more Canadian and US Case Studies

The following are a series of case studies from across Canada where SSRAs have been applied for successful redevelopment of brownfield sites.

Moncton: Rail Yards

Moncton, New Brunswick is located on Canada's east coast. The City of Moncton was home to a large, railway storage and works yard, approximately 250 acres in area, which served the eastern part of the country for most of the last century. As the city grew, the rail yard was enveloped by the city. During this time, large quantities of industrial materials passed through the yards, some of which ended up being unintentionally deposited on the site. Other industrial activities undertaken at the site resulted in additional areas of environmental contamination. With the rationalization of the transportation infrastructure that occurred in Canada during the past couple of decades, the rail yard was eventually shut down. The land remained vacant and unused for many years and became an increasing source of concern for the local community, city and provincial governments. The cost to clean up the site to unrestricted generic criteria was very high and well beyond the value of the property (estimated at approximately \$50 million).

In order to facilitate redevelopment of the property, Canada Lands Corporation acquired the site and embarked on a SSRA and associated risk management strategy. The local and provincial governments were supportive, and the regulatory infrastructure was in place to allow for the overall approach and resulting remedial plan to be successfully implemented.

To ensure that the plan was clearly communicated to the community, a round-table of recognized community leaders was formed, so that the plan could be communicated to the local community and to ensure that the community's feedback was incorporated into the design of the SSRA and risk management plan. As a result, the final plan that was agreed upon by all parties was considered a win-win situation.

The site clean-up costs were reduced from the originally estimated \$50 million to \$15 million. The remedial plan involved:

- Removing as much of the heavily contaminated material as was economically feasible. Metal-contaminated soils were trucked to a nearby mine site for ultimate disposal with other metal-contaminated mine wastes. Other small volume contaminated materials were taken off-site for disposal at a registered landfill; and
- Consolidating other higher volume wastes in engineered containment cells that were buried on a portion of the property.

The end result was that some of the property was remediated to the point where it met unrestricted generic criteria and could be used for residential purposes. A further area of the site did not meet unrestricted generic criteria, but met the more restricted generic criteria, and was developed for commercial/light industrial purposes. The portion of the property that contained the waste containment cells was converted to open space parkland and sold to the city at a mutually beneficial price to be used by all of the community for recreational purposes.

The SSRA and resulting risk management plan fulfilled all of the necessary criteria for success. It was carried out in a jurisdiction where the process was accepted and encouraged. The process was carried out in an open and transparent fashion with community involvement. The reduction of clean-up costs from \$50 million to \$15 million made the redevelopment of the site economically feasible. Lastly, the creation of a community resource in the form of parkland, ball diamonds, and soccer fields, in addition to the housing and local employment opportunities, created a sense of social equity.

Toronto: Gooderham and Worts Distillery

Toronto, Ontario is located in central Canada and has historically been home to a large number of industries. Now home to some 2.4M residents, Toronto is typical of large urban centres in the Great Lakes Basin. The urban area is undergoing a major political and economic restructuring. The Toronto waterfront is a major part of this process. Originally established in 1832 as a stone mill, by 1876, the Gooderham and Worts distillery was a major industry on Toronto's waterfront. The distillery ceased operation in the 1930's and is now listed as a National Historic Site. During the development of the city, a large amount of land was reclaimed from the lake by the placement of fill, resulting in the current Lake Ontario shoreline being located about one kilometre south from the old distillery property. In the first half of the last century, a coal gasification plant was located

immediately to the north and hydraulically upgradient of the distillery site. Over the years, a significant amount of coal tar was generated, some of which seeped into the ground to contaminate the soil, bedrock, and groundwater. This coal tar contamination migrated downgradient over the years, passing under the distillery site toward Lake Ontario to the south.

In the 1990s, a proposal was made to redevelop the site into a mixed use commercial/condominium-housing complex to help alleviate a housing shortage, and to assist in the revitalization of the city's downtown core. The property did not meet the generic criteria because of the significant soil and groundwater contamination present, principally from the coal tar contamination in the western part of the property that had migrated from the former coal gasification plant.

In order to clean the site up to the generic criteria for residential housing, the costs were estimated at more than \$15 million. There was also a question of whether or not the site could actually be cleaned up, since the coal tar contamination was located beneath buildings that were designated as historic landmarks. These realities dictated that an SSRA and risk management strategy would be necessary if the site was to be redeveloped.

The SSRA demonstrated that it would be possible to remove surficial contamination and isolate the development from the deeper subsurface contamination, rather than in the Moncton example where the hot spots of contamination were removed from the development. This was accomplished through the construction of an underground parking garage that was encapsulated by a protective membrane that incorporated swelling bentonite clay, with the entire structure supported by pilings into the underlying bedrock. The protective membrane was designed to prevent vapours or coal tar-contaminated groundwater from entering the building structure. The contaminated groundwater would continue to pass under and around the building structure, and it was demonstrated that this approach would not pose an unacceptable level of risk to the inhabitants of the condominium above. The concept



Gooderham and Worts, Toronto, Ontario Canada

The concept was developed and communicated to the local community through a number of public meetings.

By adopting this strategy, the incremental cost of isolation was limited to \$750,000, compared with a cost of \$15 million to isolate the site from the upgradient source of the contamination and then remediate it. By restricting remedial costs to this amount, the development of the condominium complex on the site became economically feasible while ensuring protection of health and safety. The fact that contamination remained below the surface required registration on the title to the property, to ensure that no unauthorized future development occurs. In addition, prospective

buyers of condominiums and tenants are made aware of the environmental conditions on the site.

The SSRA and resulting risk management plan were able to fulfill all of the necessary criteria for success. The planning process was carried out in an open and transparent fashion with community consultation, and it was carried out in a jurisdiction where the SSRA process was allowed and encouraged. Reduction in the site clean up costs from \$15 million to less than \$1 million made the redevelopment of the site economically feasible, and the creation of a community resource in the form of a balance between market rate and affordable (low-income) housing created a sense of social equity.

Vancouver: False Creek

Vancouver, British Columbia is located on Canada's west coast and has been a centre for the lumber, shipping, and related industries for the last 100 years. Development over in the first half of the 20th century along an embayment known as False Creek, included a former rail yard, a coal gasification plant and historic land reclamation activities, and resulted in contamination of soil and groundwater in the area by heavy metals, petroleum hydrocarbons, and coal tar.

In the early 1980s, Vancouver hosted an international exposition (EXPO 86), and required land on which a number of the necessary facilities could be constructed. A parcel of land approximately 175 acres around False Creek provided an adequate area to support the EXPO 86 development. To do so required remediation of contaminated lands and subsequent redevelopment of the area for new, beneficial uses including retail buildings, parks and residential housing. The initial estimated cost to remediate the contaminated soil and groundwater was over \$20 million, making the project economically unfeasible. In fact, environmental issues were of sufficient concern that it was reported that the developers nearly abandoned the property for the EXPO 86 development.

The developer embarked on a SSRA and associated risk management strategy. The local and provincial

governments were supportive, and the regulatory infrastructure was in place to allow for an SSRA and risk management plan to be implemented. The developer worked together with a public advisory committee to communicate the progress of the development activities and ensure that the community's feedback was incorporated into the design of the SSRA and risk management plan.

The remediation plan involved removing as much of the contaminated fill material as was economically feasible, and then containing the remainder of the contaminated soil on site. The SSRA assisted in defining the requirements of the containment strategy. The final result was that a portion of the property was remediated to meet generic residential criteria. High-rise towers and mixed residential uses were eventually developed on this part of the property. Other portions of the property, where residual contamination was contained, and where the SSRA showed the levels of exposure to the contamination to be acceptable, were used for open space parkland. The area was subsequently developed and EXPO 86 was a major success for the City of Vancouver, catalyzing further redevelopment of that city's waterfront.

The SSRA and associated risk management plan fulfilled all of the necessary criteria for success. The process was

carried out in an open forum, with community involvement and input, and it was carried out in a location where the process was accepted and encouraged. The reduction of clean-up costs made the redevelopment of the site economically feasible, and the creation of a community resource in the form of parkland, in addition to the mixed housing and local employment opportunities, provided significant local benefits.

For many brownfield sites in Canada, SSRAs represent the most realistic, environmentally sound management strategy for successful redevelopment. SSRAs allow for redevelopment opportunities to be economically

feasible, without compromising human health or environmental quality. The outstanding challenges focus attention on the need for improved communication concerning real and perceived risks and how best to address them; the need for more expertise within review agencies; the need for financial incentives to attract potential investors to brownfield properties; and the marketability of properties and project financing where long term care and maintenance are required. Notwithstanding these challenges, risk assessment and risk management will remain an important “tool”, essential for the continued revitalization of Canada’s urban areas.

The European Experience

About 750,000 sites across Europe are suspected of being heavily contaminated as a result of former industrial and military activities. Over the past decade many European jurisdictions have redeveloped derelict sites using innovative policy frameworks and new methods for assessing and managing potential risks at these sites.

Detlef Grimski, Soil Protection Dept, German Federal Environment Agency, provided an overview of the German situation. Once a large center of European heavy industry, Germany has had to address the need for fundamental restructuring of the post-industrial landscape. In Germany soil pollution became a concern in the early ‘80s when number of contaminated sites were being used for residential purposes. At the end of 1997, more than 190,000 sites were registered as potentially contaminated. The register includes abandoned waste disposal sites and industrial sites. A number of issues emerged as the register was developed, including how to define the extent of the pollution and associated risk, cleanup objectives and remediation technology to be used, liability, funding as well as associated social and economic implications.

In the absence of national standards to help guide the cleanup of abandoned contaminated sites, individual Länders were issuing their own regulations which were quite different in nature and approaches to cleanup.

As a result, a soil conservation program was adopted in 1985 that integrates soil protection and remediation of

contaminated sites. With passage of the Soil Protection Law (in 1998) project leaders and communities now have new legal tools to evaluate and manage environmental risks and to allocate liability. German federal legislation provides uniform standards for the investigation, risk assessment and the remediation of former industrial sites. The Act provides three categories of soil quality criteria in the form of soil levels:

- “Action levels” that indicate a danger that has to be avoided. Further investigations to determine the danger are usually not necessary.
- “Trigger levels” encouraging further investigations to determine whether or not contamination implies danger.
- “Precaution levels” that indicate the chance of future soil problems that need to be addressed to avoid future damage.

The Action and Trigger levels are risk-based, taking into account how the site is actually used and what future uses could be expected, and targeting protection to be considered, and the hazard potential of the contamination.

Public health is the most important object of protection. Risk assessments usually carried out by experts help determine the exposure of contaminants through the soil, plants, food, surface or ground water. Lists of cleanup values exist and are used mainly for guidance; not as a rigid binding forces for initiating cleanup measures and setting remediation targets.

Meaningful public involvement is key to a project's success

Community involvement has emerged as one of the most important elements of a successful brownfield project. Residents should be included in the planning process and given access to information about contamination and cleanup options so that they have an opportunity to make their views known, and provide information about past and future land use, economic development and environmental protection.

In Minneapolis, community participation was central to the redevelopment of the Johnson Street Quarry into a discount shopping center. The Minneapolis Community Development Agency assembled a neighborhood task force which met monthly in a televised public forum to discuss project plans. The group expressed concerns about traffic, noise, and public safety and called on the city to implement a series of traffic control measures and infrastructure improvements before it would support the initiative. The city and the developers met these requests, and the project moved ahead with strong public support.

Charlie Bartsch noted that the US success stories suggest that effective community involvement takes place when site owners and local officials work with residents and other local stakeholders to answer 5 basic questions:

- When should the public be involved, and how often?
- Who drives the public process and how are local concerns and objectives addressed in the project plan/design?
- Who determines how clean is clean for a site where SSRA is the preferred approach and how is this decision reached?
- What is the plan for community outreach and who leads it? Who pays for it?
- Should the media be involved – and when?

The Moncton Rail Yards in New Brunswick, Canada, is another good example of productive community involvement in a brownfield redevelopment project.

In that project a community round table was established composed of trusted community leaders. The round table was an integral part of the planning process and implementation of the redevelopment.



Experience in the United Kingdom – Groundwork Trust

Malcolm Barton from the United Kingdom's Groundwork Trust demonstrated the importance of community involvement in projects throughout the UK. Groundwork, a non-profit charitable organization, is dedicated to the economic, social, and environmental regeneration of communities impacted by the restructuring of the United Kingdom's industrial economy. Groundwork's projects are built on the understanding that people living in the post-industrial communities are the key to successful regeneration. Citizen involvement is a cornerstone of the whole approach.

There are currently 42 individual trusts operating throughout the UK (with 9 in the USA), each governed by a board of directors from the community it serves. Not only are community members involved in decision-making, but also in restoration activities where exposure to risks is minimized. Groundwork programs include education and training, school programs, youth development, and volunteering. Local initiatives by teenagers and young adults have encouraged the community's younger members to take pride in their neighborhoods and to develop a renewed sense of pride and accomplishment.

A variety of financial incentives are being used to encourage Brownfield Redevelopment

Remediation programs succeed when they establish a climate that invites commitment and investment in brownfield reuse. A variety of financial and non-financial tools and incentives are available to make this possible.

Non-financial incentives include liability relief, certainty of process, and expediency. In New Jersey for example, the State Legislature has provided several key liability protections that added needed safeguards for parties managing voluntary cleanup projects. The U.S. Brownfield and Contaminated Site Remediation Act, signed into law on January 6, 1998 includes provisions that protect buyers of tainted sites from private lawsuits and from having to perform additional cleanup work, both related to past contamination, if they clean up the site in accordance with New Jersey Department of Environmental Protection regulations.

The State of Pennsylvania has also developed a variety of tools to encourage cleanup and redevelopment of brownfield sites. These tools include a directory of brownfield sites eligible for redevelopment; a technical guidance manual; multi-site agreements providing a comprehensive plan for remediating multiple sites over a period of time; buyer/seller agreements that give legal protection to prospective buyers who did not cause a site's contamination; and regional contacts to environmental cleanup professionals that can advise on redevelopment.

In Canada a range of market-based environmental insurance products are available to developers of contaminated sites. Cleanup Cost Cap policies can protect a project proponent from cleanup costs that overrun the budgeted amount. Environmental Wrap-up insurance can be used by contractors' operations and professional services to insure themselves from liability, all under one policy. Pollution Legal Liability Insurance or Spills Insurance can be used to protect businesses and landowners from the liability of a future contamination problem. Other insurance policies are available that can act as a future cleanup fund and have the effect of transferring and timing the risk and capital outlay.

Similar insurance coverage is available in the United States, and is usually more readily available and less costly. Insurance policies in the US include property transfer liability insurance, third party liability coverage for bodily injury or property damage occurring on or off site, clean up cost cap, owner-controlled insurance coverage for the acts or omissions of remediation contractors and consultants at a site and during transportation and

disposal of hazardous substances. The most significant type of coverage is the clean-up loss coverage that removes considerable uncertainty associated with the cost of remediation and therefore the level of financial risk related to the acquisition of a brownfield site.

Financing incentives are offered in many states and vary from providing assistance to reduce loan underwriting and documentation expenses, to tax credits, abatements, and grants to help pay for site assessments or cleanups.

The United States' experience also offers useful incite through its Land Recycling Program, Pennsylvania offers a range of financial assistance to help landowners and communities, non-profit and economic development organizations with cleanup. These include low interest loans to businesses that may cover up to 75% of the cost of completing an environmental study and implementing a cleanup plan; grants to help finance demolition, building renovations, new construction and specific infrastructure improvements; and funds to assist the assessments of publicly owned sites with excellent potential for redevelopment.

The State of California will be launching a new \$85 million Urban Cleanup Loan Program to help developers, businesses, and local governments pay for site assessments and cleanups.

Michigan has adopted a new 100 percent tax abatement to encourage site reuse in community designated "obsolete property rehabilitation districts".

In Michigan, the Brownfield Financing Act (1996) permits municipalities to create Brownfield Redevelopment Authorities. These authorities can dedicate state and local taxes generated by the redevelopment into financing remedial cleanup. Moreover, developers are granted a tax credit on their single business tax, and bond funds totaling \$335 million have been dedicated by the state for brownfield redevelopment.

For more information on the US trends concerning financial incentives visit the EPA Brownfields web site: <http://www.epa.gov/swerosps/bf/internat.htm> or the Northeast Midwest web site: <http://www.nemw.org>.

Among many of the brownfield tools and programs offered by Groundwork in the **United Kingdom**, is the SiteSavers program. SiteSavers was developed with the help of the Barclays Bank, the British Trust for Conservation Volunteers, the Wildlife Trusts and Scottish Conservation Projects. The program encourages local communities to be the driving force behind restoration and stewardship of derelict land and to design plans for reuse. 60 annual financial awards are granted to communities with the greatest need and with the most innovative, original scheme. Most sites that receive funding are redeveloped into recreational areas, community gardens, wildlife refuges, and parks.

It's important to look beyond site boundaries: the inherent value of a brownfield site is best determined through understanding its relationship with the surrounding environment, urban design and spatial structure

Brownfield sites are an important component of urban development and the local planning process. But fears of unexpected consequences, unclear regulations and the perception of unacceptable risk have made greenfields more attractive than brownfields for development. Moreover, the costs of preparing a brownfield site for redevelopment may be more than the costs of developing a greenfield site.

Nevertheless, the scales can be tipped in favor of reinvestment in brownfields. How is the real value of a brownfield site determined?

In the UK, Groundwork Trust works with local communities to implement a wholistic approach in determining the value of a site. The decision on site use should recognize the interaction between the site its surroundings. Specifically, site value is defined by three factors:

- environmental value—importance of the land for the ecological balance
- urban value—importance of the land for the urban situation and development
- regional/structural value—importance of the land in terms of the structural reorganization and ordering of the region and long term development strategy.

Derelict Land Regeneration - People, Nature and Restoration Strategy Manchester 28th-30th November 2001

The Manchester programme focused on derelict land regeneration, community engagement and ecological restoration processes. It was hosted by Groundwork Trust, the University of Manchester and the International Brownfield Exchange.

Speakers from Europe and North America included practitioners, academics and those involved in developing environmental and regeneration policy. The agenda centred on three themes:

- The role of nature in derelict land regeneration
- Approaches that engage local stakeholders, particularly local communities
- Understanding and communicating risk.

There were x participants in the 3-day programme (see appendix A for a list of participants).

DAY ONE: Challenges and Opportunities

Chaired by Beth Benson, Executive Director of the Toronto Waterfront Regeneration Trust and Co-ordinator of the International Brownfield Exchange; and Richard Sharland, Director of Development & Marketing at Groundwork UK.

Northwest England

Walter Menzies of Sustainability Northwest, painted a 'Picture of a Region', introducing delegates to the Northwest area, and the regeneration challenges facing the region today.

Manchester was the first industrial city, and the Northwest area has also seen pioneering work to tackle

the economic, social and environmental degradation left in the wake of industrial decline. The Northwest has a legacy of 25% of England's derelict land. However, while there have been regeneration successes, there have been failures too. Despite 30 years of massive public investment, there are still some areas where serial regeneration is a curse. Walter Menzies showed that in such cases, a balance has not been achieved between social, environmental and economic development. Rather than tackling problems in isolation through short-term initiatives, sustainable regeneration requires long range thinking and a joined-up approach, where social, economic and environmental factors pull together and not apart.

The Public Policy Framework

Prof. John Handley, from the University of Manchester's Centre for Urban and Regional Ecology then discussed the review of land reclamation policy that has been carried out over the last twelve months for the North West Development Agency.

Whilst great progress has been made over the past 25 years in terms of improving air and water quality in the region, derelict land has remained an intractable problem. The Land Reclamation Review recommended that a twenty year programme for 'Reclaiming the Northwest' should be established, which would require enhanced resources as well as a more sustainable, cost-effective approach.

Prof. Handley noted the positive developments that have occurred in light of these recommendations. The NWDA is now prepared to substantially increase funding, place a new emphasis on reclamation for 'soft' end use, and make provision for endowment funding to sustain these new landscapes in the long term.

Helen Moorhouse, the Environment Agency's regional Contaminated Land Officer gave a presentation on Part IIA of the UK Environmental Protection Act 1990, which has introduced a new regulatory regime for the identification and remediation of contaminated land. The presentation identified three important aspects of the new policy framework:

- a statutory definition of Contaminated Land; complementing development related remediation and incorporating the polluter pays principle
- technical guidance for conducting risk assessment;
- introducing new duties for local authorities and the Environment Agency; providing improved guidance and standards and encouraging voluntary remediation.

Natural Regeneration Strategies

Keith Jones, a Forestry Commission Conservator, spoke about the public benefit of establishing woodlands on derelict land in the Northwest. The role woodlands can play in assisting in the remediation of contaminated land was highlighted, together with the additional benefits of providing new habitats for wildlife and contributing to economic growth, healthier environments, community development and education.

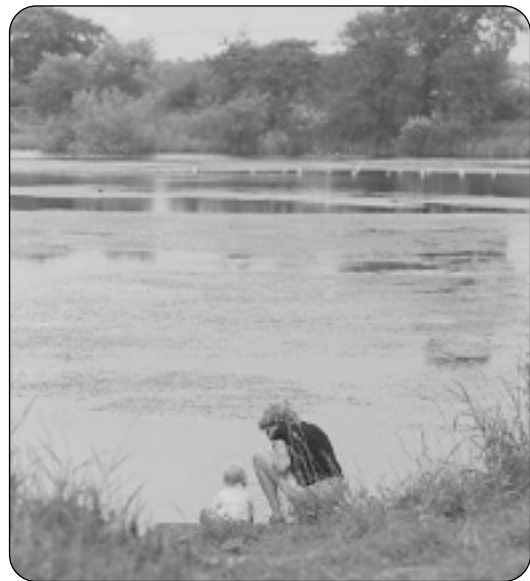
Through the 'Newlands' project, the Forestry Commission is working with the NorthWestDevelopment Agency and other partners to reclaim land in the Northwest region by establishing new woodlands. This is a five-year project, involving five counties. For this project, a new site identification tool has been developed which combines a database of derelict, underused and neglected (DUN) sites with a public benefit recording system (PBRs). Keith Jones described how this assessment process is being used to identify and target action towards those DUN sites where woodland establishment will have the greatest potential social, economic and environmental benefits.

Louise Hopkins, Deputy Chief Executive of the Mersey Basin Campaign (MBC) gave a presentation on the aims and achievements of the campaign and the vital role of rivers and waterways in regeneration. The Mersey and its tributaries permeate whole Merseyside / Greater Manchester conurbation and is therefore strategically vital to the area. The MBC has been a pioneer in using a whole river catchment as a focus for environmental, social and economic regeneration and in recognition of this, was in 1999 awarded the International River Prize. The MBC has the strategic aims of water quality improvement; stimulating the development of attractive waterside environments (for business, tourism, heritage, recreation and wildlife) and encouraging people to value and cherish their waterside environment.

Within these aims a number of projects are supported. Louise described a selection of these by way of example. Notwithstanding their diversity in terms of scale and nature, what they all had in common was an engagement with a diverse range of stakeholder organisations and groups, including local residents. With long term vision and a partnership approach, the Mersey Basin will be the key to the North West region's regeneration and future prosperity.

A European Policy perspective

Liz Mills, a Senior Associate of the Institute for European Environmental Policy, focused on EU Urban Environment Policy and the re-use of land. The presentation gave an introduction to policy development in this area, and discussed the impact of existing EU policy instruments and measures. This included overviews of the European Sustainable Cities Project, the objectives for sustainable urban development set out in the European Commission's 1998 'Framework for Action' (COM(98)605), and proposals in the 6th Environmental Action Programme. Liz Mills also explored the recommendations of the EU Expert Group on the urban Environment's Working Group on Sustainable Land Use, and described new proposals that aim to address mismatches between policy and funding instruments.



Sugarmill, Wakefield, UK (Source: Groundwork, UK)

Germany's Ruhr Revitalization

Michael Schwarze-Rodrian from Projekt Ruhr GmbH described best practice brownfield regeneration in the Ruhr area, looking in particular at the Emscher Landscape Park.

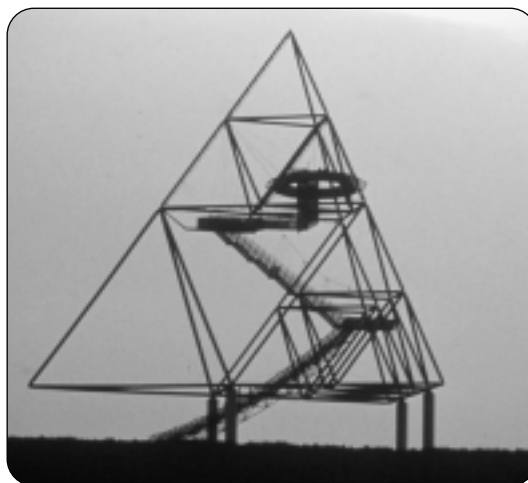
The lessons of more than a decade of regeneration in Germany's former heavy industrial heartland point to the convergence of opinion concerning international best practice:



Gelsenkirchen, Ruhr Region

- First, ensure that a strategic approach with long term vision is adopted, with the emphasis on development rather than reaction to circumstances.
- Second, combine strategy with project level action. Here it is essential to engage people and communicate ideas, making abstract programs a reality for those who live there. This point was illustrated with examples of popular events, public green ways and art works.
- Thirdly, the benefits of local and regional co-operation for the future of a common landscape, as opposed to action by individual agencies or authorities are demonstrable.
- Finally efforts must continue in order to fully realize the benefits of an integrated, holistic approach that integrates ecological, economic and social objectives.

Michael concluded with his hopes for future phases of the Ruhr regeneration project. Although initially conceived as a ten-year program, completed in 1999, this should not be seen as the end, he said. A landscape park is a generational project, never completed. New projects initiatives and stewardship of landscape remains important priorities for communities of the Ruhr Area.



Tetrhedron, Bottrop, Ruhr Region

North American Experience

An insight into the North American experience of land regeneration was provided by Charles Bartsch from the Northeast-Midwest Institute, and Edmund Sullivan from the County of Niagara Department of Planning, Development and Tourism.

Charles Bartsch gave a brief history of the state and federal policy relationships in the US, relating to brownfield issues. The key conceptual and programmatic changes since the early 1990s were reviewed. These include: the introduction of Voluntary Cleanup Programs (VCPs); the evolution of risk based corrective action (RCBA) processes; the incorporation of innovative technologies and the growing use of institutional controls to ensure long term maintenance of environmental control systems, and the development of more effective public participation and engagement processes.

An overview was also provided of the federal EPA Showcase Communities initiative, and the lessons learned from the first round of Showcases, including:

- co-ordination between the project team and regulatory agencies saves time and effort
- public-private partnerships are workable and should be expanded for broader scale re-use; the one size does not fit all: diverse resources and incentives are needed;
- early successes are critical, even if small ones,
- ongoing community outreach work and education builds support and local capacity..

Edmund Sullivan, of the County of Niagara, New York, gave a presentation on the Buffalo Niagara Showcase Project. The Project, in its start up stage, aims to link brownfields redevelopment to the economic, social and ecological restoration of the Niagara River Watersheds, and the Erie Canal.

The guiding principles of the project are to achieve sustainable redevelopment, using watershed boundaries as a planning framework, incorporating eco-system management principles, green infrastructure planning and waterfront revitalisation.



Buffalo River, USA (Source: Lynda Schneekloth)

Regional co-operation and community participation are key elements in this process. It is important that the communities involved create a long-term vision of their future that balances economic, environmental and social needs, and incorporates the views of wide cross sections of the community.

Edmund described how the eco-system management approach has been applied to the Great Lakes and Niagara River Watersheds, and how this approach can broaden our scope of environmental management, offering a fundamental reframing of how humans may work with nature

DAY TWO:

Toolkits for Community Led Regeneration

Chaired by Malcolm Barton, Environmental Consultant and Dr. Philip Putwain, from the School of Biological and Earth Sciences, University of Liverpool.

The morning's programme focused on recent experience developed in a project called 'Toolkits for Community Led Regeneration of Derelict Land', by Groundwork and the University of Manchester. Supported by the European Commission LIFE programme, this has surveyed best practice across Europe, and is making findings available through a new Internet site www.ecoregen.com which will incorporate practical toolkits to support best practice.

Prof. John Handley from the University of Manchester's Centre for Regional and Urban Ecology (CURE), described the 'Context and Concepts' behind the ecological approach on which the project is based.

Prof Handley's message was clear: Land reclamation is often seen as a technical problem requiring a technical solution: the exclusive domain of the civil engineer and the environmental scientist. However, this may inhibit community involvement, reinforce social exclusion, and interrupt natural recovery. An ecological approach to derelict land reclamation works with the grain of natural recovery, regarding physio-chemical variability as a positive asset, providing a template for biodiversity. It recognises that humankind is within nature as part of the natural eco-system and promotes meaningful social engagement through effective community involvement. It also seeks to achieve long term sustainability of the restored landscape.



City of Niagara Falls, USA (Source: Thomas Desantis)

Projects test effectiveness of the ecological approach

In the early 1980s, Groundwork undertook a large-scale demonstration project at Bold Moss near St Helens in Merseyside. Groundwork restored the derelict site employing an ecological approach, creating new recreation facilities with local people, and a network of new habitats, whilst respecting the area's original character. The approach was tested on a larger scale through Groundwork's 'Changing Places Program', which over the last five years of the 20th century restored 21 sites throughout England and Wales, creating new community parks.

This program provided the opportunity to evaluate the effectiveness of community participation, the extent to which natural processes have been involved, and the long term sustainability of the restored landscape. Several lessons were learned, including:

- it is very difficult to maintain community involvement beyond the short-term project implementation phase
- developing a long-term ecological vision is critical
- it is essential to devise a land management mechanism with an income stream to ensure sustainability.

The 'Toolkits for Community Led Regeneration of Derelict Land' project has aimed to capture the experiences of the Changing Places Program. The objective is to build on the work completed and to take the ecological approach forward by surveying current practice in the UK and European mainland and by making information on best practice accessible through the development of a toolkit, which is available at the ecoregen.com web-site.

Chris Ling, Research Associate at CURE, described how the survey was conducted, and what evidence the results revealed about current practice in Europe. A questionnaire survey, together with workshops in Leeds, England; Lleida, Catalonia; Modena, Italy and Saarbrücken in Germany explored the use of the ecological approaches through the various stages of the land reclamation process, from inception to project aftercare.

The survey findings indicate that while there may be relatively high levels of consultation during initial project phases, community involvement does not tend to be sustained into the design, delivery and aftercare phases. The survey also highlighted differences between the UK and mainland Europe in terms of delivery organizations. In the UK there is greater involvement by NGOs and the voluntary sector, while in the rest of the European Union projects are mainly carried out by local authorities and the public sector.

Common difficulties included problems with landowners and project partners with regard to control of the site; it is often difficult to find funding for community work and projects are also often compromised by a lack of revenue funding. A lack of community interest is often assumed to exist, but in reality this is rarely the case.

Common successes included work with children and schools that provide strong links to the local community, and also the establishment of community groups, who are able to contribute to project management.

Prof. John Rodwell from the Unit of Vegetation Science at Lancaster University spoke about 'Understanding and Working with the Grain of Nature', stressing the importance of ecological surveys for regeneration projects, and the benefits that can be gained from tapping into this rich information source. Prof. Rodwell posed four key questions which regeneration practitioners should ask of their projects: 'Is nature a partner in the project, 'Has nature been consulted?', 'Is nature seen as a community?' and finally 'Is nature understood as a process?'

Rather than a uniform and static 'backdrop' to regeneration activity, nature has complex patterns and dynamic processes, which we have to negotiate with and manage over time. By understanding these processes, it is possible to present local communities with imaginative but realistic and sustainable options for sites.

Peter Morgan, National Programs Manager at Groundwork UK, gave a presentation on the new www.ecoregen.com web-site which was formally launched at this international meeting. Peter explained the objectives of ecoregen.com: to identify good practice in ecological regeneration; to identify relevant knowledge,

useful information and sources of information; to bring good practice, knowledge and information together in a practical format (Toolkits) and; to build a web site for the dissemination of toolkits and to support interaction amongst user communities.



Rothwell, Leeds, UK (Source: Groundwork, UK)

Peter noted that *ecoregen.com* does not seek to be prescriptive and to assert that a particular approach is 'right' or 'wrong'. Rather its purpose is to show the benefits of an ecological approach and how this can work in practice and to provide practical support for pursuing this option.

Following the formal presentations, a site tour of regeneration projects was provided by 'New East Manchester', the East Manchester urban regeneration company. Jane Milton, the Project Director, gave an overview presentation on the role of the company, and its vision for the 1,100 ha area. Delegates were then able to view construction work progressing on the new City of Manchester Stadium, where athletics events will be held during the 2002 Commonwealth Games.

A coach tour of the area then provided delegates with the opportunity to see a number of regeneration sites providing new housing, shopping facilities, business parks, and canal improvements.

The evening events celebrated the 30th anniversary of the UNESCO Man and Biosphere (MAB) initiative with a presentation by the program's Secretary and Director of the Division of Ecological Sciences, Dr. Peter Bridgewater. Prof. Handley gave an overview of the work of MAB's UK Urban Forum and the UK URGENT program.

DAY THREE:

Site Visits

Site visits in the Northwich area of Cheshire, where land reclamation activity has been undertaken over the past 25 years to address the legacy of the local chemical industries. An introduction to the area for delegates was provided by Ted Manders, Executive Director of Groundwork Macclesfield & Vale Royal.

Ian Whittaker of Cheshire County Council gave an overview of Cheshire's Strategic Program of Reclamation, which aims to restore 164 ha of land for environmental enhancement, including former lime waste lagoons and salt workings.

Peter Heberlet then described how Groundwork helped to reclaim a former chemical dump, creating a new community park for the new millennium, through the 'Changing Places' programme. Olwyn Dean, Chair of the Friends Group of the new Griffiths Park spoke about the role of the group, and its involvement throughout the project. Olwyn described how Groundwork and the community group had dealt with the issue of risk, and the benefits that can be realized where the community feels that it has ownership of a project.



Site visits guided by Peter Heberlet and Lesley Nel of Groundwork Macclesfield & Vale Royal were made to three projects:

- Neumann's Flash, derelict lime waste reservoirs with areas of ecological interest where reclamation work is about to begin;
- Griffiths Park, where physical works were completed in 2000 and
- Anderton Nature Reserve, a former lime waste tip now an area of established woodland.

Griffiths Park was one of the projects funded in Groundwork Trust's Changing Places program. It is a collaborative project that aims to create a new recreational area on a former landfill site for the people of the village of Rudheath. Partners in the project include ICI/Zeneca, the Millenium Commission, Vale Royal and Cheshire Councils, the Rudheath community and Groundwork Trust. It was the responsibility of ICI and Zeneca to secure the landfill for use as a public park. More than 750,000 tonnes of soil were moved, 10,000 square meters of liners were installed before the final layer of soil was placed on the reshaped landfill. The cost of the engineering works was about 4million British Pounds. The landscape design includes recreation areas planned by the community, installation of benches and public art and more than 2KM of pathways. Over 30,000 trees and shrubs were planted and community members are involved in park maintenance and natural and cultural heritage interpretative programs



Griffiths Park, Rothwell, Leeds, UK
(Source: Groundwork, UK)

LOCAL SUPPORTERS OF THE INTERNATIONAL BROWNFIELD EXCHANGE PROGRAM WORKSHOPS:

Cheshire County Council

City of Hamilton, Canada

City of New York Housing Preservation
& Development

City of New York, USA

Community Foundation for Greater Buffalo

Deutsche Bank

East Manchester Urban Regeneration Co.

Environment Canada

Groundwork Macclesfield & Vale Royal

Groundwork Trust UK

Hamilton Harbour Development Trust

Queens Borough President's Office

The Ontario Trillium Foundation

University of Manchester, Centre for Urban &
Regional Ecology

U.S. Environmental Protection Agency

Reflections from an American Perspective

Jody Kass

New Partners for Community Revitalization

New York

Jody Kass was part of the delegation from the United States that participated in the November 2001 Manchester workshops. Her observations and conclusions are offered here as a platform for continued international exchange of ideas and expertise.

CONCLUSIONS :

1. There is a need to integrate soft and hard uses to achieve a balance. The process of greening the landscape needs to be carefully woven into the planning and implementation of “hard projects,” i.e., the physical construction of affordable housing and other community development projects. This is particularly important in New York City, where the 4,000+ acres of brownfield sites are primarily located in and adjacent to the low income communities which also are the most under-served in open space and recreation. Indeed, one might argue that it is precisely the lack of an integrated green approach to community development projects that has resulted in the infamous community gardens lawsuits. Thousands of properties are in limbo as the ongoing battle between community gardeners and the City Administration rages over the plan to build affordable housing on hundreds of city-owned vacant lots that were greened by neighborhood groups.

2. Green space should be integrated into the planning process upfront, and not as an afterthought. If the “greening” process is not coordinated with the plan, it is much more likely to be rejected. As the planning and regulatory process of a project moves forward, people get more wedded to their plans and less open to change. This is not necessarily stubbornness, but rather the fact that new ideas, even good ideas, if presented late in the planning process are likely to result in delay and/or additional cost.

3. There is a need to link long term environmental sustainability with long term economic sustainability. The work in the Ruhr Valley/Emscher Park was terrific, and it depicts an innovative and important approach to brownfields regeneration. However, it is also important to realize that it was a 10-year program that was largely government funded and government led. Now that the 10-year period is over, there are new challenges securing the revenues to cover maintenance costs, and it will be impossible to replicate without another huge commitment from government. In these difficult economic times, government funding will not be available at the same scale and it was reported that a second phase will be dependent at least partially on the ability to secure private financing for 49% of the costs.

Attracting private funding to brownfields projects generally requires a revenue source to repay those investments over time. This will take an enormous shift in approach, priorities, and goals.

The challenge is to integrate perspectives. Those coming from the ecological perspective need to understand the constraints that arise from needing to attract private investment; and developers need to understand and embrace the value that an ecological approach to community development brings. The Waterfront Regeneration Trust begins to bridge this gap and it is why workshops and exchanges, such as the Derelict Land Regeneration Workshop are so important. These exchanges allow for the sharing of ideas, encourage thinking “out of the box,” and promote a broader understanding of diverse perspectives.

4. There is a need to build leadership – The overwhelming importance of leadership was a constant theme throughout the Workshop. The problem of “short-termism” is an inherent obstacle to brownfields regeneration. Due to the time involved, whether driven by economic need or ecological goals, the timeframe for a regeneration project will almost always be longer than the term for an elected official. Consequently, it is difficult to see how the necessary leadership should be centered in government. The challenge is to build and promote institutional leadership that is not subject to the vagaries of the election term cycle. Rather than looking to government to lead the way on brownfields

regeneration, it is time to look to the nonprofit sector for long term, institutional leadership that can transcend election cycles.

5. Stronger linkages between brownfields regeneration and pollution prevention are needed. - Professor John Handley pointed out that the rate of new dereliction is faster than the rate of reclamation in the Mersey Basin area. Further, he pointed out the difficulty in identifying where the line is being crossed from an active property to derelict land – and therefore, it being difficult to intervene. Another obstacle is the limited power/ authority to intervene. While it is not clear if the rate of dereliction has been studied or measured in the U.S., it is clear that a much more direct linkage needs to be made between brownfields reclamation and pollution prevention efforts. This is particularly true in urban areas, where noxious uses are ongoing and are in close proximity to residences and sites slated for reclamation. Indeed, many businesses pay fines for environmental violations (e.g., air emissions, noise, illegal dumping, etc.) as a normal expense of doing business. These violations are an enormous obstacle to neighborhood revitalization efforts.

Can the “landscape led regeneration approach” be successfully applied in the U.S.? Are there lessons learned in the UK that can be applied in Upstate New York?

The overwhelming issue in the Buffalo/Niagara area is economic development/jobs. There have been a number of efforts to revive the local economy, but each has failed. It is time to realize that the traditional approach to economic development will not work. The only way to “sell” a Landscape Led Regeneration approach is to link it, and if possible, make it central to, an economic resurgence plan for the area.

Landscape Led Regeneration as part of a **Three-Pronged Approach** to Rebuilding Upstate New York might include:

1 – Casino Gambling anchors – Need to be planned and constructed in a way that integrates green and ecological approaches, and need to be designed so that they build on and benefit the local community, as opposed to excluding the surrounding community (the Atlantic City model).

2 – Other Tourism Sites – The development of a new Interactive Museum of Science and Industry – that embraces the industrial heritage of the area and becomes a mecca for schools, families and tourists could be an important and appropriate new attraction.

3 – Environmental Beauty of the area – The natural beauty of the Falls needs to be highlighted and leveraged. There is a need to beautify the surrounding brownfield sites. Landscape Led Regeneration – the greening of the waterfront and other strategic parcels can provide the link between tourist anchors and become a destination on their own.

Mechanics:

- Steer clear of Superfund sites for now. It is likely that the Landscape approach – making the site safer – won’t work in NY on Superfund sites. This is at least partly due to the current practice in the Superfund program of allowing responsible parties to carry out Interim Remedial Measures – so that the site is no longer a pressing threat, but the site also is not cleaned up enough to be de-listed. These sites are often in limbo – stuck in a legal/regulatory quagmire for years - due to the lack of legal closure.
- Identify strategic brownfield sites for this approach based on factors such as view corridors, size, proximity to the Falls and other attractions, property owner’s willingness to cooperate, the manageability of contamination, etc.

There was much discussion during the Workshop about Natural Regeneration – and how much less expensive it is than more conventional remedial approaches. That is NOT the way to sell the concept in New York, as it is likely to be received very skeptically. If Landscape Led Regeneration is presented as a cost savings measure, it will be viewed suspiciously – as just another way for polluting companies to save money and walk away from their responsibilities to clean up their mess. What is needed here are the scientific data to allay fears of negative impacts on public health and the environment and to stress the ecological value it brings to the environment. Making a site “safer” than it was before is not going to be good enough.

Exchange Web Sites

**An Assessment of Brownfield Redevelopment Policies:
The Michigan Experience**

http://www.endowment.pwcglobal.com/grants/richard_hula.asp

The Brownfields Center

<http://www.ce.cmu.edu/brownfields/home.htm>

City of Chicago, Department of Environment

<http://www.cityofchicago.org/environment>

**Concerted Action on Risk Assessment for
Contaminated Sites in the European Union
(CARACAS)**

http://www.caracas.at/index_frame.htm

**German Federal Environment
Agency/Umweltbundesamt**

<http://www.umweltbundesamt.de/index-e.htm>

Groundwork Trust UK

<http://www.groundwork.org.uk/>
<http://www.ecoregen.com>

**Illinois Environmental Protection Agency
Bureau of Land**

<http://www.epa.state.il.us/land/index.html>

International City/County Management Association

<http://www.icma.org>

Institute for Responsible Management

<http://www.instrm.org>

**New Jersey, Bureau of Environmental Evaluation
and Risk Assessment (BEERA)**

<http://www.state.nj.us/dep/srp/about/beera.htm>

Northeast/Midwest Institute

<http://www.nemw.org>

**Office of Environmental Health Hazard Assessment,
California**

<http://www.oehha.ca.gov/home.html>

Ontario Smart Growth Initiative

<http://www.mah.gov.on.ca>

**Pennsylvania Department of Environmental
Protection**

<http://www.dep.state.pa.us>

Pennsylvania's Land Recycling Program

<http://www.dep.state.pa.us/dep/duputate/airwate/wm/landrecy/default.htm>

Sustainability northwest

<http://snw.org.uk>

**UK Man and the Biosphere Committee
Urban Forum**

<http://www.ukmaburbanforum.org.uk>

**US Environmental Protection Agency
International Office**

<http://www.epa.gov/swerosps/bf/internat.htm>

Westergasfabriek, Amsterdam

<http://www/westergasfabriek.nl>

Waterfront Regeneration Trust

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Email: info@wrtrust.com

Web address: www.waterfronttrust.com

APPENDIX ONE:

Regeneration – People, Nature and Restoration Strategies

November 4, 2001

MANCHESTER DELEGATES LIST

Kyle Alexander, Laganside Corporation, Belfast
Sandra Alker, University of Nottingham
Micky Allen, Layla Resources
Jane Aspinall, Charles Topham & Sons
Bill Baker, The Environment Agency
Malcolm Barton, IBIS Consultancy
Charles Bartsch, Northeast-Midwest Institute
Elizabeth Benson, Waterfront Regeneration Trust
T. Bithell, Macclesfield Borough Council
Christine Bradley, The National Urban Forestry Unit
Prof. Tony Bradshaw, FRS
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