



WILDLIFE HABITAT COUNCIL<sup>SM</sup>

## Restoring Greenspace: Using Ecological Enhancement at Region 5 Contaminated Sites

September 15-17, 2003



### Conference Summary

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### INTRODUCTION

On September 15-17, 2003, the Wildlife Habitat Council (WHC) conducted the first of a series of regional conferences designed to educate and convey the findings of a WHC-sponsored "white paper" on the use of ecological enhancements at contaminated sites. The recently completed scientific white paper (entitled "*Making the Case for Ecological Enhancement*") was highlighted as a valuable tool for site managers, community representatives, regulators, and others, and a variety of other topics were discussed by the diverse set of attendees. WHC was assisted in conducting this conference by numerous partners (United States Environmental Protection Agency (USEPA) Office of Solid Waste and Emergency Response and Office of Underground Storage Tanks, U.S. Department of Defense Office of the Under Secretary of Defense for Installations & Environment, and Interstate Technology & Regulatory Council (ITRC)), sponsors (AIG Environmental, Alcoa Inc., BP, Bridgestone Americas Holding, Inc., ConocoPhillips, ExxonMobil, FMC Corporation, Monosol, LLC, NiSource Inc., and PPG Industries, Inc.), supporters (City of Hammond, Hammond Department of Environmental Management, Lake County Convention and Visitors Bureau, and URS Corporation), and many others, and once again utilized the services of EcoLogix Group Inc. for conference organization and implementation.

The conference, attended by over 100 participants, marked another important step in the implementation of the *Objectives and Action Agenda for Implementing Ecological Enhancements* developed by WHC and its partners at a national conference in July 2002. A compelling combination of presentations and discussions covering the white paper issues relating to the benefits, obstacles and next steps, coupled with several field trips to sites where many of these techniques have been or are being implemented, led to a unique learning opportunity for all who participated. In addition, everyone benefited from new information gained about WHC programs, the initiatives of USEPA, and many learned of the valuable resources of ITRC for the first time. Several new relationships were spawned as a result of the attendees having a chance to work and learn with one another, and the closing session of the conference laid the groundwork for several Region 5 entities to work together in an effort to continue to promote and educate on the use of ecological enhancements in the area.

Building upon the success of this event, WHC and its partners will continue this series of regional conferences next summer. A steering committee for the next conference is currently being assembled and the location of the event will be determined by the end of this year.

## CONFERENCE SUMMARY

The conference was kicked off with an enjoyable reception, sponsored by NiSource Inc., on the evening of September 15, 2003. The following is a brief summary of the conference sessions which began on the morning of September 16<sup>th</sup> and concluded at the end of the day on September 17<sup>th</sup>.

*Tuesday, September 16, 2003*

### Opening Remarks & Overview of Conference Objectives:

**Speakers:** Bill Howard, President, Wildlife Habitat Council; Robert Nickovich, Director, Lake County Parks and Recreation Department; Steve Luftig, Senior Advisor for Reuse Programs, U.S. EPA, Office of Solid Waste and Emergency Response

**Summary:** Bill Howard welcomed everyone to the conference and set the stage for the event. He thanked the numerous entities whose support made the event possible and then made several overarching points including the following:

- Using natural resource-based approaches in remediation/reuse/redevelopment projects can often achieve substantial cost-savings and improve the social, economic and environmental value of sites, and there remains a substantial need to foster implementation of this approach in site clean-ups.
- To that end, WHC has organized and hosted three Washington, DC meetings of industry, government and conservation organizations to promote the inclusion of ecological enhancements as part of site restoration programs in Superfund, RCRA Corrective Action and Brownfields. This year, WHC is beginning to focusing on the implementation of ecological enhancements at a regional level, specifically starting with U.S. EPA Region 5.
- As the first step in this part of the effort, WHC also assembled leading scientists & practitioners of ecological enhancement techniques to produce a white paper ("*Making the Case for Ecological Enhancement*") that provides a future vision that will result in restoring contaminated sites in a way that adds more community value by going beyond the basic human health goals of RCRA activities.
- Over the next two years, and starting here in Region 5, WHC will conduct other regional conferences, drawing in local decision-makers, regulators, community leaders, land owners and other stakeholders, in an effort to spread the word and build partnerships for broader implementation of these techniques both as remediation techniques and end uses. WHC will also be identifying sites for pilot projects to demonstrate and further refine the science and knowledge base.
- These enhancements not only result in sites having more community value than they have had in the past, in some cases for a past that is more than 100 years old, but helping set the stage for community economic and environmental sustainability well into the future.

Robert Nickovich welcomed all conference attendees to the northern Indiana area and provided some general background on the restoration efforts occurring in the region. He also expressed Indiana's high level of interest in the topic of ecological enhancements and their great pleasure in being the location of the first Wildlife Habitat Council region conference on the subject matter.

Steve Luftig provided attendees with an overview of USEPA's interest in the subject of ecological enhancements. He described the fact that EPA is undertaking an important initiative to restore land to productive economic and green space end uses at the same time the Agency protects human health and the environment by cleaning up waste sites. To facilitate and promote land revitalization, EPA has developed an Action Agenda, a blueprint for achieving more land restoration as part of clean up. A number of steps already have been taken in EPA's cleanup programs to further reuse efforts, but much more can be done to expand on the successes that have been achieved. The Action Agenda will further EPA's land reuse goals by: ensuring that cleanup program policies, guidance and enforcement agreements encourage reuse; creating public-private and cross-governmental partnerships to foster reuse; instilling a culture of reuse in our

government workforce; and providing incentives for reuse through streamlined implementation of the Federal Brownfields legislation.

### **Keynote: Making the Case for Ecological Enhancements:**

**Speaker:** Kathy Banks, Director, Purdue University, Midwest Hazardous Substance Research Center

**Summary:** Kathy Banks provided conference attendees with an excellent idea understanding of the relevance of the conference and White Paper to the Region 5 area. She explained that:

- Low-cost clean-up options, including plant-based technologies, can be used for contaminated properties that may not initially have a high redevelopment value.
- Environmental clean-up technologies are often destructive to the resource, permanently changing the properties of soil, sediment, or aquifer. Alternative remediation methods, such as phytoremediation, the use of plants for soil and water clean-up, simultaneously remove pollution and restore valuable resources.
- Possible conversion of the northern Indiana lakeshore and adjacent areas from a highly industrial, unsightly area to a model of community green space and commercial development, complete with educational nature preserves, parks, and public beaches, is now an achievable goal.
- The utilization of low-cost clean-up options in urban planning to increase commerce, recreation, and job opportunities is a key to commercial success.
- This commitment to the future will have tangible benefits including: a decrease in the number of brownfields, increased job opportunities, a cleaner environment, and an improvement in the quality of natural resources. Furthermore, such an effort will have the additional impacts of increasing regional pride, engaging the community, and helping to further build strong working relationships between communities and industry.

### **Panel: The Science Behind Green Technologies:**

**Moderator:** Lucinda Jackson, Environmental Team Leader, ChevronTexaco

- Chuck Harman, AMEC Earth & Environmental, Inc.
- Lori Miller, USDA Agricultural Research Service, SOHES

**Summary:** Lucinda Jackson set an excellent context for two very interesting technical presentations from Chuck Harman and Lori Miller which are summarized below.

Chuck Harman addressed technical approaches to habitat enhancement as part of remedial actions and discussed enhancement activities that can be used to increase habitat diversity such as invasive species control, construction of aquatic structures, woodlands and meadow management, and phytoremediation. Monitoring and maintenance issues such as watering, planting diversity and disposal of contaminant-accumulating vegetation were also addressed. Finally, Mr. Harman contrasted the differences between standard engineered approaches to activities as streambank restoration and ecologically based restoration and highlighted the applications of these technical approaches through a review of case histories.

Lori Miller provided extensive detail on the effort to use a sustainable vegetative/compost cap on a 30-acre municipal landfill at the USDA Beltsville

Agricultural Research Center (BARC) in College Park, Maryland. Mrs. Miller explained that, to show that the vegetative/compost cap will perform as well as a standard cap, BARC is performing a three-year pilot study. She provided details on the control and study plots, the use of methane from the landfill via a distribution system under the compost, the various soil/compost mixtures, and the plantings of a variety of evergreen and deciduous trees, shrubs, grasses, and groundcovers, selected for their specific abilities to improve cap performance. Finally, Mrs. Miller described the monitoring protocols that will be followed during the pilot study.

### **Panel: Lessons Learned and Obstacles to Green Technologies:**

**Moderator:** Mary Jane Calvey, Oklahoma Department of Environmental Quality

- David Tsao, Ph.D., Group Environmental Management Company (a BP-affiliated company)
- Robert Mueller, New Jersey Department of Environmental Protection

**Summary:** Mary Jane Calvey gave a brief overview of the regulator's prospective on ecological enhancements and then moderated two interesting presentations by David Tsao and Robert Mueller summarized below.

David Tsao provided attendees with a corporate perspective on the acceptance to developing habitats through phytotechnologies. He explained that, while phytotechnologies can be extremely useful and flexible tools for remediation circumstances, gaining corporate approval for such systems is not always straightforward as time, available land area, and short-term economics often dictate these decisions. In order to gain acceptance in the corporate setting, there are several advantages which can provide the incentive. These include environmental considerations, social responsibilities, and financial value. In addition to the creation of habitat, other environmental advantages include reducing greenhouse gases, controlling wind/water erosion, and minimizing waste generation. In terms of social aspects, phytotechnologies reduce safety risks by their less mechanical nature, are viewed favorably as a 'green', sustainable technology, are relatively easy to understand from a layman's point of view, and generate a valued resource in the form of aesthetic green space. Finally, in terms of the net present value of phytotechnologies over shorter-term solutions, the major cost savings and financial incentive for proceeding occurs through the reduced operations and maintenance requirements, ability to self-regulate, in-situ nature, and solar-powered operability.

Robert Mueller provided attendees with a review of lessons learned and obstacles to the use of green technologies. His presentation included a summary of advantages associated with the use of phytotechnologies and associated costs. He also described in detail several regulatory barriers to the use of green technologies along with an overview of commonly encountered stakeholder concerns. Mr. Mueller illustrated many of his points through the use of a case study – the Global Landfill located in New Jersey. He concluded his presentation by noting that phytotechnologies can be cost effective, habitat friendly, have broad application, and are not generally subject to any greater regulatory burdens than many other remediation technologies. Lastly, he informed the attendees that several states, including Alabama, Illinois, Kansas, Louisiana, North Dakota, New Jersey, New York, Oklahoma, Oregon, Tennessee, Virginia and Vermont, are in the process of concurring and using the ITRC's "Phytotechnologies Tech & Reg

Guidance” as a tool to evaluate the appropriateness of proposals containing phytotechnologies.

### **Lunch Presentation:**

**Speaker:** Cliff Rothenstein, U.S. EPA Office of Underground Storage Tanks

**Summary:** Mr. Rothenstein provided an excellent luncheon presentation by speaking about the vast universe of petroleum brownfield properties and what EPA is doing to promote the cleanup and reuse of these valuable properties. He described how EPA's Office of Underground Storage is partnering with WHC and others to help communities turn abandoned gas stations into new parks and wetlands and other beneficial reuses. This partnership with WHC will help promote how ecological restoration can easily be incorporated in the cleanup and reuse of petroleum contaminated properties as well as show the benefits of doing so. He further provided participants with knowledge about the tools EPA has available to assist state and local governments in their efforts to cleanup and reuse petroleum contaminated properties. Finally, he explained how former gas stations can become valuable ecological resources and how partnering with EPA can raise visibility about the benefits of reusing these valuable properties and encourage others to reuse these properties to beautify communities across the nation.

### **Field Trips:**

**Summary:** Conference participants each chose and participated in one of three concurrent field trips which are described below:

- **City of Hammond**  
Participants visited and learned about contaminated sites in various stages of remediation and greenspace restoration. The City of Hammond Department of Environmental Management guided the trip to sites along Grand Calumet River, UST sites transformed into pocket parks and greenspace, George Lake and Lost Marsh of Hammond, and the BP phytoremediation project next to the BP Whiting Refinery. The trip showcased the use of ecological enhancements for remediating petroleum contaminated properties and highlighted the importance of working with community leaders.
- **City of Gary**  
Participants visited a former landfill, Brownfield sites, and industrial facilities under RCRA corrective action with potential for ecological land reuse. They heard about efforts to create a green belt around the city that includes parks on former contaminated sites, natural conservation areas, Lake Michigan lakeshore and Grand Calumet River. A visit to the Indiana Dunes National Lakeshore was also included.
- **Southern Chicago**  
Participants heard about urban restoration projects at former industrial sites in South Chicago with a focus on measures that restore urban watersheds and revitalize communities. Highlighted were innovative storm water management techniques that prevent uncontrolled non point source urban runoff from entering nearby water bodies via traditional storm water systems. Sites visited included:
  - *Chicago Manufacturing Campus:* A 135 acre redevelopment now under construction consisting of a total of 10 new factories and warehouses totaling some 1.6 million SF under roof, located on the sites of a former Allied

Chemical Company plant and Republic Steel slag processing facility. This brownfield redevelopment is a joint venture of CenterPoint Realty and Ford Motor Land Development Corporation and will support the huge investment by Ford at the nearby Ford Chicago Assembly Plant on Torrence Avenue. By providing just-in-time delivery of critical automotive subsystems resulting in synchronous material flow, the investment of more than \$85 million for the new industrial park will allow the existing aging auto plant to remain competitive with introduction of the new Ford Cross Trainer vehicle in 2005. The Illinois EPA provided a "No Further Remediation" (NFR) letter following extensive site cleanup work that acknowledges engineering and institutional controls limiting the site to industrial/commercial use with strict adherence to a Site Management Plan. This was further backed by an AIG-issued Environmental Impairment Liability Insurance Policy that protects both the developers and tenants. Storm water is managed above ground and naturally treated in a series of vegetated swales and restored wetlands before discharge to Indian Creek and the Calumet River.

- *Calumet Area Ecological Management Sites:* From the City of Chicago Harborside Golf Course that overlooks the entire Lake Calumet Area, the potential of this planned vast open space reserve of some 4,800 total acres is quite impressive. From this area we were impressed with the premier ecological sites located in the heart of heavily industrialized South Chicago that include extensive wetland areas and open waters that provide marsh, mudflat, and upland habitats for a wide variety of birds and other wildlife. The golf course itself is a brownfield redevelopment constructed on a former landfill site, and the Phase I Lake Calumet Area sites in particular (Heron Pond, Big Marsh, Deadstick Pond, Indian Ridge Marsh and Lake Calumet) are already home to a number of state-endangered bird species such as the snowy egret, black crowned night heron, and yellow-headed blackbird.
- *Former US Steel South Chicago Works:* This more than 100 year old former industrial site was the predecessor of the Gary, Indiana steel works of USX and is located on some 450 acres of historical fill adjacent to Lake Michigan. All of the old buildings have been demolished and there remains a deep channel canal and dockage protected by an extensive breakwater harbor system extending into the lake. With the impressive skyline of downtown Chicago clearly visible along the lake shore to the north and the abundance of nearby marshlands and associated wildlife habitats, the brownfield redevelopment potential of this site is virtually unlimited, perhaps for high rise residential condominiums and a recreational marina.

### **Lost Marsh of Hammond Grand Opening:**

Following the field trips the participants all gathered together again at the Lost Marsh of Hammond for an opening ceremony. This site is a former industrial site that has been redeveloped into a multi-use recreational facility complete with 18-hole golf course, driving range, wetlands and a wildlife viewing area. Restoration of nearby George Lake includes an enhanced fishing habitat, restoration of natural areas, migratory waterfowl habitat retention and progressive hands-on educational programs for youths of all ages.

**Wednesday, September 17, 2003**

**Breakout Sessions:** The morning of September 17<sup>th</sup> was devoted to participants attending concurrent breakout sessions. The morning's first set of offerings included

three case studies where participants could learn the particulars of three different sites where ecological enhancements had been incorporated into site reuse and two sessions devoted to specific ecological enhancement issues. The morning's second set of sessions also offered three unique case studies and two sessions devoted to particular issues associated with the use of ecological enhancements. Abstracts for each of the six case studies are appended to this conference summary. The four topical breakout sessions are summarized below.

### **Case Studies:** (See Abstracts)

- **City of Gary, Indiana**
- **PPG Industries, Inc., Lime Lakes, Barberton, Ohio**
- **U.S. Department of Energy, Fernald Facility, Cincinnati, Ohio**
- **ChevronTexaco, Cincinnati Site**
- **Little Calumet Restoration Area**
- **UST Case Study, Freeport, Illinois**

### **Ecological Enhancement Issues:**

- **Regulatory:** Robert Mueller, NJDEP, provided attendees with an excellent overview of commonly-encountered regulatory impediments when site managers seek to use non-traditional remediation measures. The discussion included:
  - Examples from New Jersey where ecological enhancements have been successfully used and circumstances where their proposed use has not been accepted.
  - A lengthy discussion regarding another east coast site where a plant-based remediation technique was proposed and ultimately rejected by the regulators.
  - Emphasis on the importance of providing regulators with robust information on the proposed ecological enhancement technology
  - The need to enhance communications between state regulators regarding these sorts of innovative technologies.
  - The excellent tools available in this regard from the Interstate Technology Regulatory Council (ITRC) through their technical teams (including a soon-to-be-formed Ecological Enhancements Team), guidance documents and training tools.
- **Assessing Value and Receiving Credits for Ecological Enhancements:** This session consisted of a roundtable discussion where business and agency representatives shared information on the projects that they had been involved in which attempted to assess the economic value of ecological enhancements either as remediation techniques or end uses. These included tracking property value increases, identifying tax benefits, and others. The workgroup concluded that additional studies would be beneficial and a number of next steps were



needed, including: (1) determining whether mitigation credits should be allowed for voluntary ecological enhancement projects; (2) assessing the value of community support; and, (3) assisting EPA in developing its “Critical Ecosystem Project.”

- **Innovative Technologies:** Robert Mueller, NJDEP, led an excellent discussion on new and innovative ecological enhancement technologies with a substantial focus on the work of ITRC. The discussion included:
  - Details on the structure and format of ITRC including, in response to several inquiries from attendees, how entities can join the organization.
  - Details on several existing ITRC guidance documents available that address components of ecological enhancement technologies.
  - A review of a few ecological enhancement success stories that have been summarized by the ITRC.
  - A description of how the ITRC training courses are scheduled and delivered.
- **Community Issues and Development:** Mark Kalwinski, Pulaski Neighborhood Assn., Maurice Williams, Delta Institute, and John Perrecone, U.S. EPA, Region 5 each shared their experiences with the attendees. Several projects and programs were discussed for their value in teaching lessons on community involvement in redevelopment projects. These included a reclamation project in Gary, IN and the TOSC (“Technical Outreach Services for Communities”) program run by Michigan State University. The group then proceeded to identify five “lessons learned” that resonated most clearly with the group: 1) having a neutral 3<sup>rd</sup> party can be key to arriving at solutions; 2) an entity or individual person needs to be charged with keeping the process going over time; 3) public involvement requires money; 4) agreements should be recorded so that they survive over time; and 5) partnerships should be built with as many entities as possible that are concerned with the project.

### **Lunch Presentation:**

**Speaker:** Bill Murray, MWH

**Summary:** Bill Murray, a private contractor working for the Department of the Army at the Joliet Army Ammunition Plant, provided attendees with an overview of a large-scale munitions-contaminated soils remediation operation. This project was detailed for attendees in a manner that included volumes treated, cost per unit treated and technical difficulties encountered with the project. Bill answered numerous questions on the techniques used and their applicability to other remediation circumstances.

### **Plenary: Making the Case for Ecological Enhancements:**

**Moderator:** Jerry Amber, Ford Motor Company, retired

- Ron Novak, Director, Hammond Department of Environmental Management

- Lori Kaplan, Commissioner, Indiana Department of Environmental Management
- Steve Rock, U.S. EPA Office of Research and Development

**Summary:** Jerry Amber moderated a lively discussion focused on “making the case” for the use of ecological enhancements.

Ron Novak described the “Hammond Experience” which included the environmental history and issues involved in the city of Hammond followed by the changes that have occurred in the governmental environmental compliance structure to address current and future community and business concerns. He focused on the issue of the quality of life in the city as it relates to Brownfield Development and green space and highlighted the City of Hammond’s efforts in developing the largest Brownfield site in the State of Indiana known as: “Lost Marsh” or the “Mega-Site”. He also discussed the development of commercial, industrial, residential and green space sites within the city of Hammond and the unique challenges presented with each option along with the partnerships forged with other governmental and environmental organizations to make these endeavors successful.

Lori Kaplan explained how the Indiana Department of Environmental Management (IDEM) is using its regulatory capacity to facilitate the cleanup of contaminated areas and the restoration of habitat within the Lake Michigan, Grand Calumet River/Indiana Harbor Area of Concern. She presented several examples of brownfield site restoration, including habitat restoration and protection associated with contaminated site cleanups under several IDEM Regulatory Programs, with an emphasis on in-stream remediation and habitat restoration of the Grand Calumet River under Natural Resource Damages and Clean Water Act, and wetland restoration under RCRA.

Steve Rock explained that environmental regulatory agencies are charged with protecting human health and the environment, and have the task of ensuring that site remediation complies with applicable laws and regulations. He further described that when an innovative technique is proposed on a site, or an alternative to the accepted practices and established end use is proposed, agencies must be careful that good ideas are not stifled by inflexible regulation, while at the same time making sure that both the spirit and the letter of the laws governing site clean-up and reuse are met. Through various examples, he demonstrated that understanding the varied perspectives of a site is key to achieving a consensual solution. When site owners, consultants, and neighbors understand the regulatory perspective, proposals can be crafted and presented to promote acceptance, and usually the earlier in the process the regulators are invited in, the more acceptable is the final design and product.

### **The Industrial Excess Landfill – A Stakeholder Success Story:**

- Tim Bent, Bridgestone Americas Holding, Inc.
- Sue Ruley, Lake Township, Ohio
- Timothy Fischer, U.S. EPA Region 5

**Summary:** Tim Bent led off an interesting discussion of a stakeholder success story that has been being implemented at the Industrial Excess landfill (IEL) site in Uniontown, Ohio. Mr. Bent provided the context for the speakers that followed him by describing the

ownership circumstance and the efforts of Bridgestone Americas Holding, Inc. to use ecological enhancements on site and work closely with the surrounding community, elected officials, and others to remediate the site and provide other community benefits.

Sue Ruley provided a thorough explanation of a proposed “earthscape” design on seventeen acres surrounding the IEL while also considering the proposed design for the landfill and neighborhood and community issues. She explained how Lake Township utilized a landscape architectural firm, an environmental consulting firm, and a Community Advisory Group to develop a reuse design for the IEL. The proposed earthscape design promotes the notion of re-creating the various existing/proposed ecosystems and allows passage through these systems. The intention is to connect with the site via trails and ecosystem rooms that promote engagement with the past and present conditions, while allowing for educational opportunities that speak to the future.

Tim Fischer described USEPA’s involvement in the IEL project beginning in 1989 when a Record of Decision (ROD) detailed a traditional remediation plan, through numerous meetings with the PRPs and the public in the late 1990s and beyond, to an amended ROD in 2002 Plan calling for a change in the remedy for the site. This new plan includes: 1) augmentation of the existing vegetative cover at IEL with selective planting of trees and other plants at the site; 2) natural attenuation of groundwater contaminants both off site and on site; 3) continued monitoring of groundwater and landfill gas; 4) perimeter fencing; 5) deed restrictions on the future use of the IEL property; 6) maintenance of the alternate water supply installed in 1991; and 7) additional design studies. Mr. Fischer explained that the design of this final remedy is now underway, and it is anticipated that it will be in place sometime next year.

### **Closing Panel: Envisioning the Future in Region 5:**

**Moderator:** Bob Springer, Director, U.S. EPA Office of Solid Waste

- Dorreen Carey, Environmental Affairs Coordinator, City of Gary, Indiana
- Gabriele Hauer, Section Chief, Brownfields & Site Investigation, IDEM
- Kay Nelson, Executive Director, Northern Indiana Center for Land Reuse
- Gerry Phillips, U.S. EPA Region 5

Discussion: Creating a Region 5 Workgroup and Action Agenda

**Summary:** The closing panel provided attendees with much to consider as we all work together to increase the use of ecological enhancements in our restoration efforts. Doreen Carey reminded everyone of the land use history in the Region 5 area with extensive discussion of the impacts of development on the dune and swale ecosystems of the region. She proceeded to discuss many of the restoration efforts underway including the Grand Calumet River area and the Gary Green Link project. Focusing on stakeholder involvement, Doreen described how, through partnerships, the Gary area can be sustainably revitalized from both an environmental and economic perspective. Gabriele Hauer’s remarks echoed the importance of stakeholder involvement, communication, comprehensive planning for the desired end-use, and adherence to smart growth principles. Using the Uniroyal and Gary Lagoon sites as examples,

Gabriele demonstrated how sustainable reuse can be achieved with broad public participation and support. Kay Nelson and Gerry Phillips provided similar messages, noting that an infrastructure for restoration of the region is being developed and growing partnerships, including new relationships formed at the WHC conference, will continue to foster increased restoration and reuse activities.

### **Closing Remarks:**

**Summary:** Bill Howard brought the conference to a close by remarking that:

- The Region 5 conference had been an exciting & productive two days and that, thanks to the generosity of several of our local sponsors and hosts, attendees had an opportunity to view first hand the values and challenges associated with incorporating green technologies into our land revitalization efforts.
- This marks just the first of several regional conferences focusing on White Paper issues that will occur over the next two years. The next Regional Conference will take place during the summer of 2004. WHC will be assembling a Steering Committee by the end of the year.
- WHC, EPA, DoD, ITRC and others will continue to work with Region 5 entities such as BP, US Steel, the Northwest Indiana Forum, Save the Dunes Council, City of Gary, City of Hammond, EPA Region 5, and IDEM to achieve the regional vision and agenda brought forth in this conference, and will continue making the case and pushing this agenda forward in other regions.
- To help ensure continuing progress, WHC has opened a Northwest Indiana office, managed by Daniel Goldfarb. Daniel will be working closely with an ever-expanding network of entities interested in revitalizing sites in the region. The office is located in Hammond, IN and the telephone number is 219-933-4950.