

# Connecting Ecological Restoration to Industry

## Calumet Region

**Wildlife Habitat Council**  
NW Indiana- SE Chicago Office  
Daniel Goldfarb

Calumet Summit 2010

## Programs

- Wildlife at Work
- Corporate Lands for Learning –
- Technical support
- Certification and accreditation
- Recognition, Awards at our November 2008 Symposium in Baltimore, MD



The **Wildlife Habitat Council** works to increase the amount of quality wildlife habitat on corporate, private, and public lands.



## Land Restoration Program:

To encourage the ecological restoration and reuse of degraded and contaminated lands using wildlife habitat enhancements and community partnerships.



## Ecosystem Services Conference

*A New Generation in Restoration:*

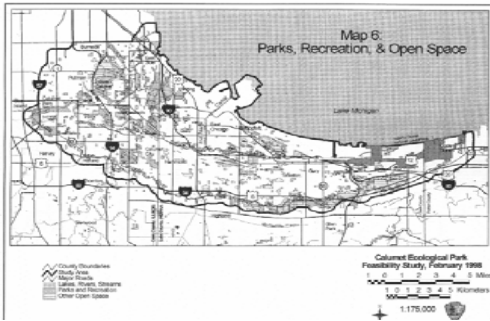
*Strategies for Managing Corporate and Public Land*

**June 24-25, 2010**

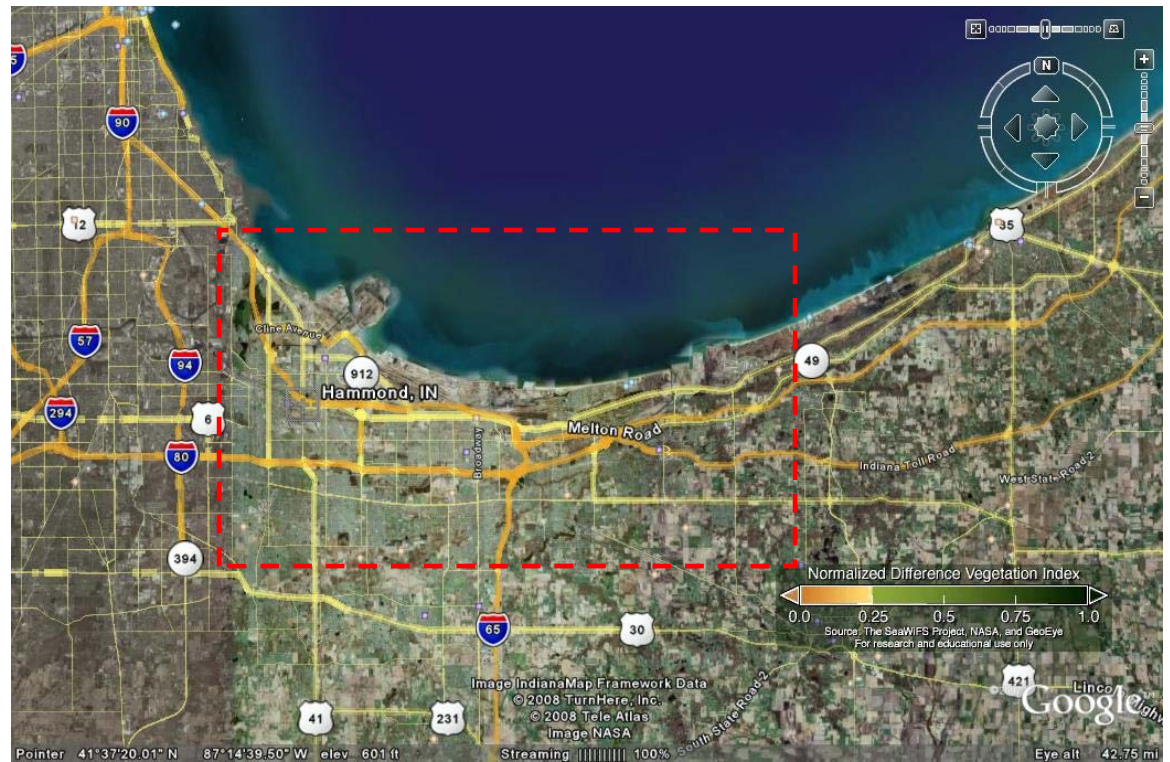
**Crowne Plaza Hotel**

**Silver Spring, MD**

[www.wildlifehc.org/events/ecosystemservices.cfm](http://www.wildlifehc.org/events/ecosystemservices.cfm)



CELEBRATING 20 YEARS  
**2019**  
 WILDLIFE HABITAT COUNCIL



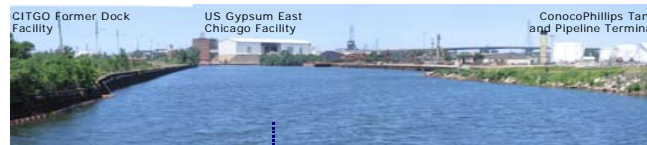
Major changes in the landscape – reconfiguration of rivers and streams, building on dunes – shallow water table – pre-settlement vegetation as template –green infrastructure efforts by Chicago Wilderness, NIRPC, and others

# Process in bringing about ecological reuse and restoration on industrial lands:

1. Regulatory Context
2. Planning Context
3. Conservation Context
4. Public-Private Partnerships for ecological restoration and conservation education

## Indiana harbor and Ship Canal/Grand Calumet River

### Area of Concern



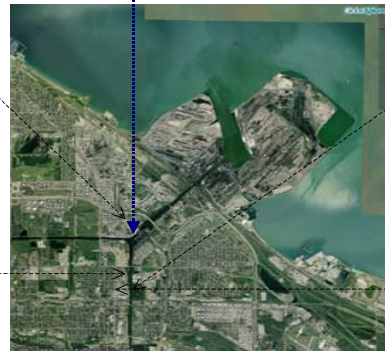
View North of IH&SC from Grand Cal River Branch



View of Harbor, USG shoreline area



Sheen on Federal IHC facing east



View of ConocoPhillips wetlands



USEPA ERG Phytoremediation research on IH&SC shoreline

## Regulatory context:

- RCRA Corrective Action of major industries
  - Ecological reuse of National Steel in Portage, US Steel Gary Works Mighty Acorns and Corporate Lands for Learning, ArcelorMittal South Facility ecological reuse and education in Burns Harbor.
- Superfund Sites/CERCLA
  - Calumet Containers Superfund Site
- Grand Calumet Area of Concern (Great Lakes policies)
- Brownfields redevelopment initiatives by each municipality and by the private sector under state law.



## Planning context:

- Lake Michigan Management Plan of 2004
- The Grand Calumet Feasibility Study by IDEM, IDNR, and US Army Corps of Engineers
- The Marquette Plan: public access to the lake and economic development of the coastal zone
- NIRPC/Chicago Wilderness green infrastructures/Greenways and Blueways
- SE Chicago Calumet Ecological Park initiative
- Chicago Ecotox study/guidelines
- NIRPC 2040 Planning process



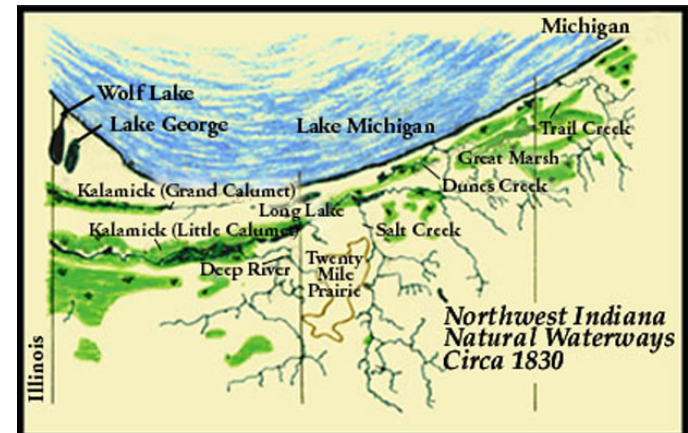


- Lake Michigan Coastal Zone of Northwest Indiana and Southeast Chicago neighborhoods
  - Together with SE Chicago neighborhoods make up an ecologically distinct area
  - Urban-industrial land use with fragmented natural areas of high biological diversity
  - Culturally rich and diverse population

## Conservation Context:

- US National Park Service Indiana Dunes
- Indiana DNR, TNC, and Shirley Heinze Land Trust.
- Remnant beaches, marshes, moraines, small wetlands, slow moving rivers.
- Convergence of three biomes: boreal remnants, eastern deciduous forests, and tall grasslands.
- Landform defined by beach ridges and swales parallel to modern Lake Michigan shoreline. Ridges have Black Oak Savannas, Jack Pine-Oak barrens, and sand prairies. Swales have a range of permanent and ephemeral wetlands. Formed in the last 4,500 years.

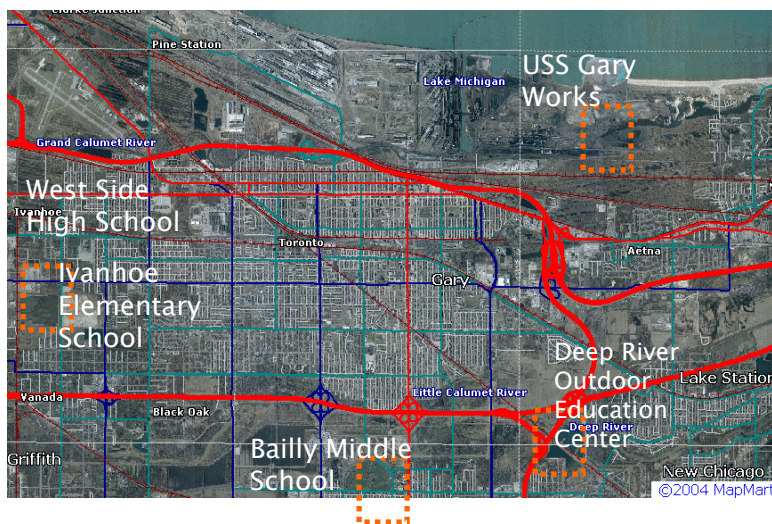
- Precedents in ecological reuse, rehabilitation, and restoration of degraded and contaminated areas
- Public-private partnerships sustaining long-term work on the ground and management of sites.



# Public-Private Partnerships for ecological restoration and conservation education:

- Wildlife Habitat management and restoration as neutral issue
- Address misconceptions, perceptions (community, industry, agencies, conservation NGOs)
- Understand your company; corporate and industrial facility culture
  - How can your project help meet regulatory demand for greening?
  - How can your project link the Calumet facility with the corporate environmental mission? Sustainability mission? Climate change actions? Corporate Social responsibility?
- Develop long-term projects that provide hands-on/experiential opportunities for industrial employees, schools, community, and agencies

## Land Conservation and Education in Gary funded by the Gaylord and Dorothy Donnelley Foundation and US Steel Gary Works



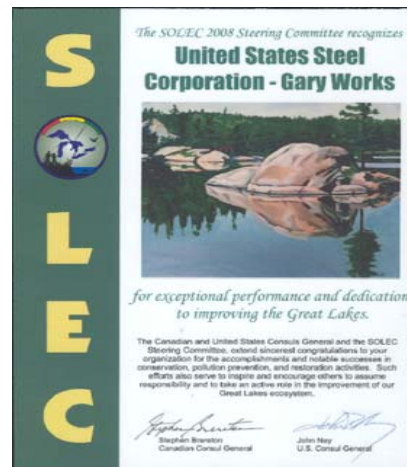
USS Gary Works Oak Savannas

# Gary Community Schools Partnership: Groundwork Gary, USDA Forest Service, USS Corporation, Indiana Dunes Learning Center, IDNR, WHC, City of Gary Department of Environmental Affairs,

USS Gary Works mighty acorns – conservation education



Ivanhoe Elementary School nature and Brownfield studies



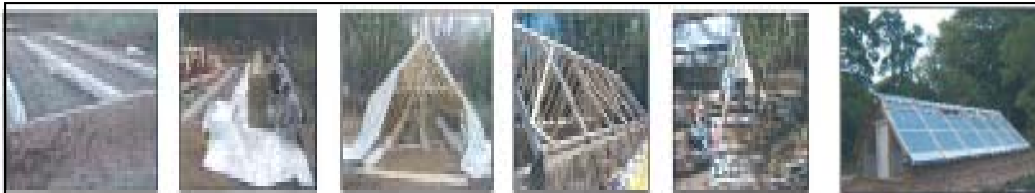


# USEPA GLNPO and Gaylord and Dorothy Donnelley Foundation



# Public-Private Partnerships work:

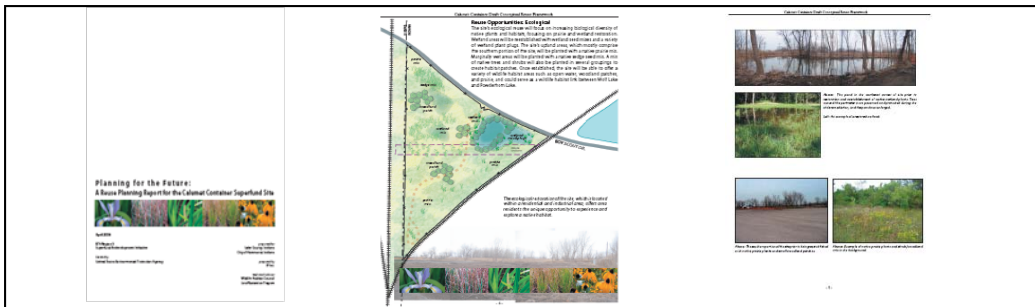
**ExxonMobil Hammond Tank Terminal** shore bird habitat restoration includes IDNR, J.F. New and Associates, USEPA GLNPO.



**Save the Dunes Solar Greenhouse**- Passive Solar Greenhouse for native plant production includes USEPA 5-Star, National Fish and Wildlife Foundation, Whole Tree Architecture and Construction WHC.

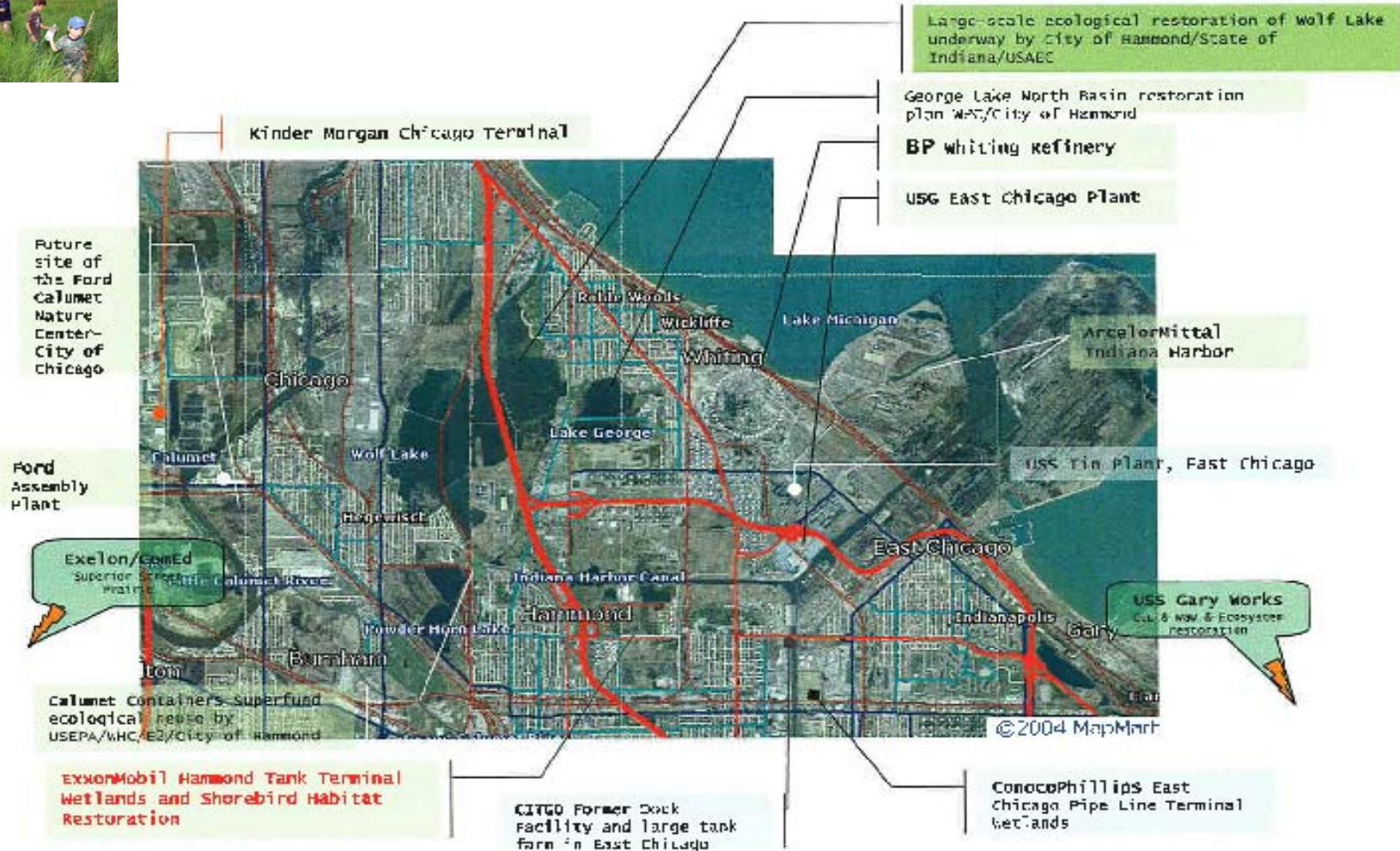


**Groundwork Gary** organization working to green Brownfields includes City of Gary, USS, WHC, Golden Recognition, Whittaker Inc., USNPS Trails and Rivers, USEPA, many others

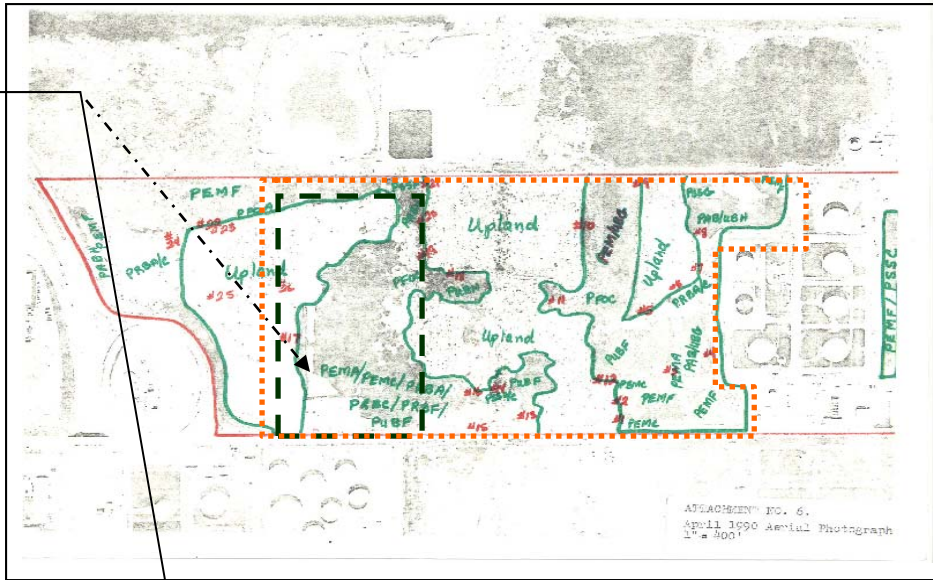


**Calumet Tank Superfund** site in Hammond restored to prairie and wetlands includes USEPA Superfund, Lake County, City of Hammond, E2, WHC.

Wildlife Habitat Council member companies and partners with ecosystem restoration and land stewardship activities in the urban-industrial landscape of Northwest Indiana and Southeast Chicago (Calumet Ecoregion)



22 Acres of 77 total acres under restoration. Dark shaded areas reflect native soils Tawas muck covered by a thin layer of slag. These areas are naturally inundated during spring and fall.



During the late summer and fall Black-bellied Plovers and peeps are regular; unusual shorebirds from this location include American Avocet, Hudsonian Godwit, Western Sandpiper, and Wilson's Phalarope



**ExxonMobil**

CELEBRATING 20 YEARS  
**2009-2017**  
WILDLIFE HABITAT COUNCIL



**ExxonMobil Pipeline Corporation**

**Hammond Tank Terminal**

**Wetland and shorebird habitat management & restoration**

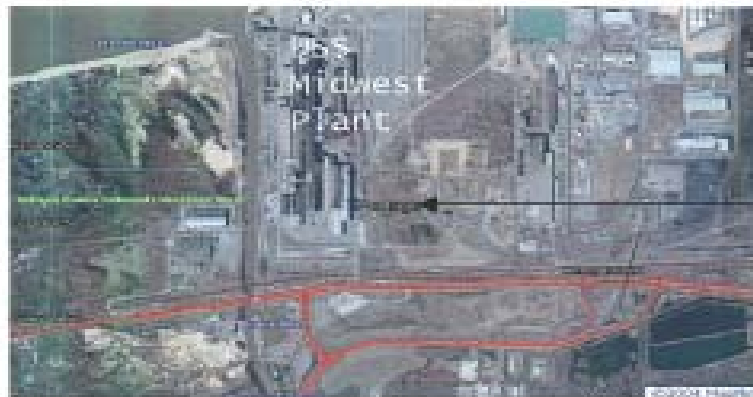


Indiana Harbor & Ship Canal section of the Calumet Region (Northwest Indiana and Southeast Chicago)



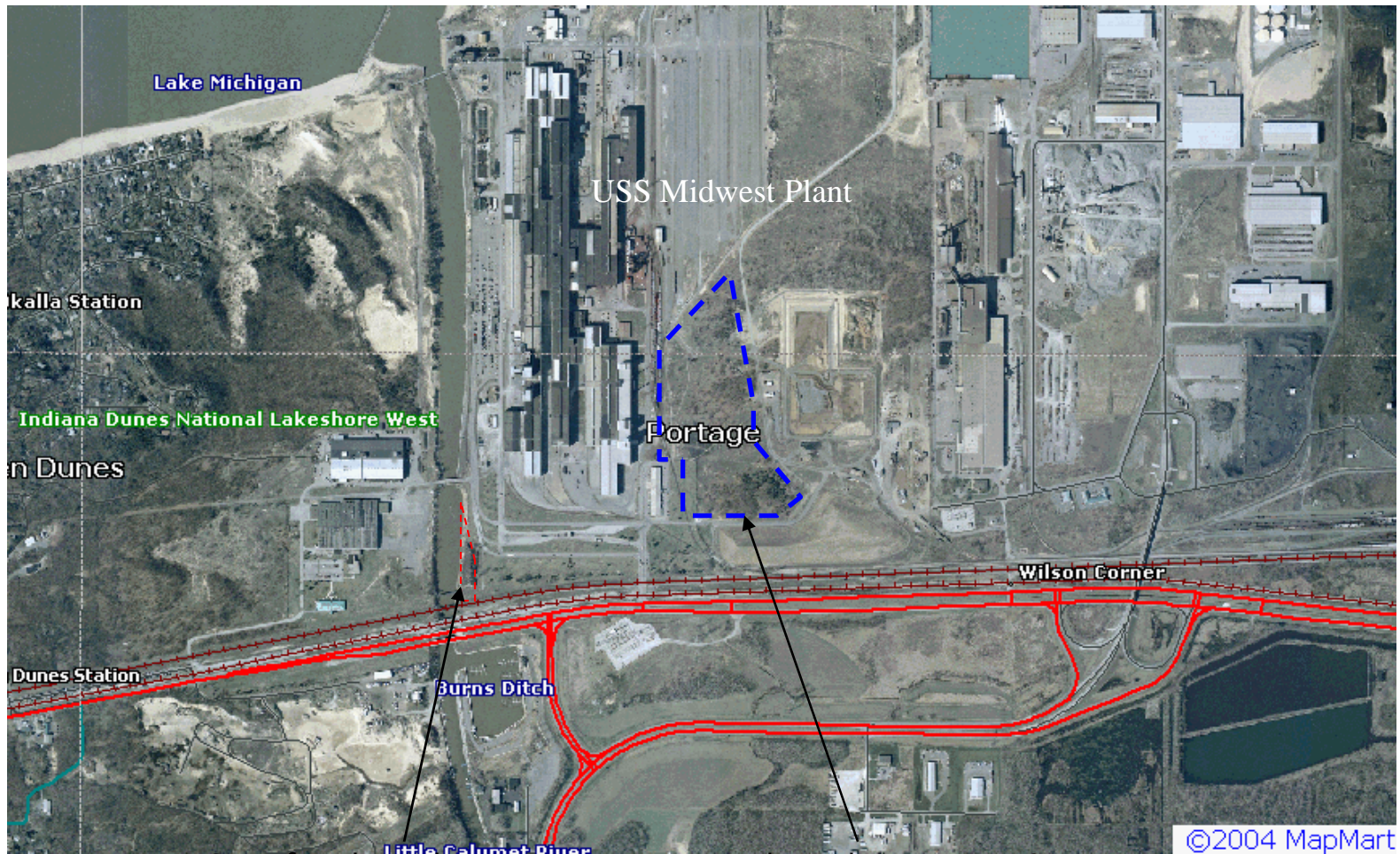
Panoramic view of a remnant sand-oak-pine barren

USS Midwest Plant ecological restoration and management of rare dune and wale ecosystem in Portage, Indiana



Aerial views





Site of ecological restoration of sand prairie by Girls Scout Troop from Portage, IN and USS Midwest Employees.

Ecological restoration & management of Jack Pine and Black oak barren and sand prairie

# Ecological Restoration / Green Infrastructures Job Training Program



Partners: USDA Forest Service, ArcelorMittal, BP Whiting Refinery

NGOs and ecological companies: Wildlife Habitat Council, Heinze Land Trust, JF New and Associates, Whole Tree Architecture and Construction, Indiana University Northwest GIS Lab, Karst Landscape Architecture, Julia Plumb Ecological Landscape Designer.

The primary purpose of this Program of Work is to implement a green job training program focused on reapplying the technical knowledge and expertise of recently laid off steel and manufacturing employees in Northwest Indiana to address the ecological green infrastructure needs of the region's urban-industrial lands.

**Funding provided by the US Department of Agriculture Forest Service through the American Recovery and Reinvestment Act of 2009 (ARRA)**



## **Benefits of Wildlife Habitat Restoration projects:**

- Greater employee morale
- Improved community relations
- Enhanced wildlife habitat
- Better interactions with regulatory agencies
- Increased effectiveness of EMS programs and supports business, corporate social responsibility, sustainability strategy
- Protection and restoration of biodiversity
- Increased public recognition



Daniel Goldfarb

**Wildlife Habitat Council**

NW Indiana–SE Chicago Office

6100 Southport Road

Portage, IN 46368

219-762-4571

[www.wildlifehc.org](http://www.wildlifehc.org)

Funding for Public–Private Partnerships between industries and communities: USEPA GLNPO, Gaylord and Dorothy Donnelley Foundation, USDA Forest Service, US Steel Corporation, Indiana DNR–NOAA Lake Michigan Coastal Program, BP Whiting Refinery, ExxonMobil Pipeline Corporation, Exelon/ComEd, USEPA OSWER