

Calumet Summit 2010: A Call to Connect

Calumet Challenges

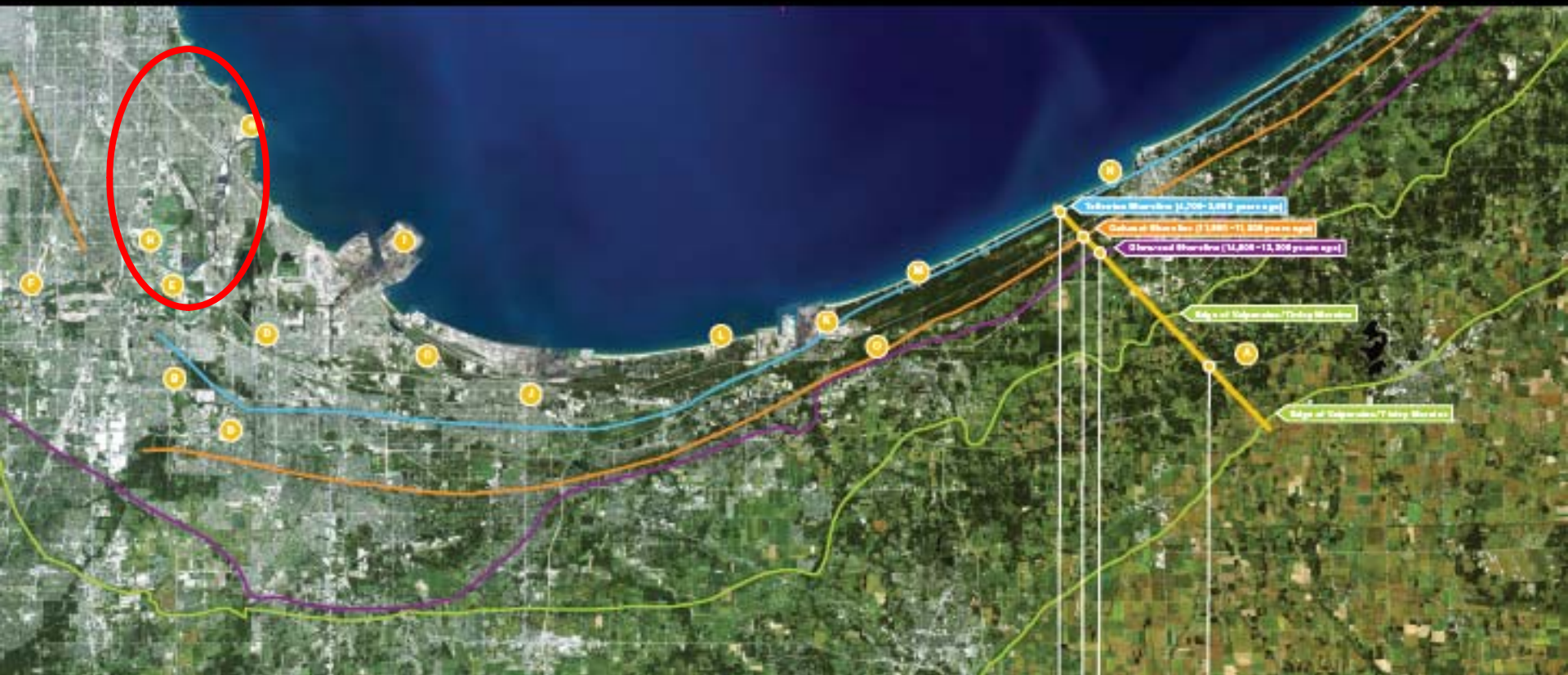
Nicole Kamins
Program Director, Calumet Initiative
Chicago Department of Environment



*Many photos courtesy of Southeast Chicago Historical Museum
and Save the Dunes website*









Date of Aerial Photos: 2006

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North

“Sometimes something worth doing is worth overdoing.” - *David Letterman*

TOP



CHALLENGES

LIST

1

We have a weighty responsibility to care for our charges.



Black-crowned night heron



Karner blue



Pitcher's thistle



Photo Credit: Adam Mann,
Creative Solutions

Indiana bat



Piping plover

2

We have such varied ecosystems.

Dune and swale remnants

Wetlands

Forests

Prairies

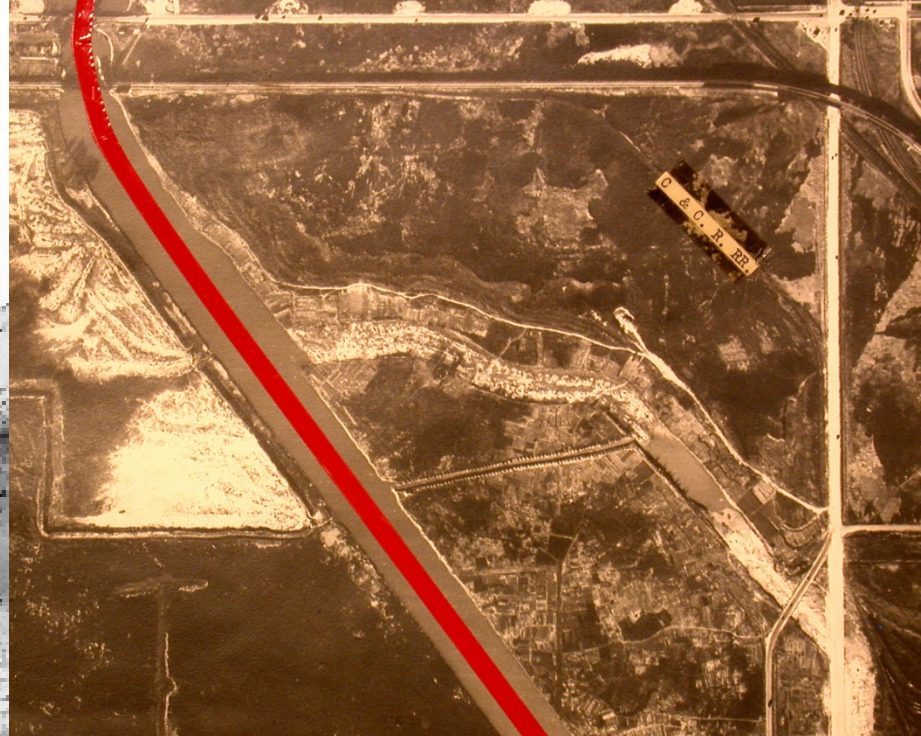
...and more.

How do we manage as regional complex?



3

We have some degraded and highly altered ecosystems.



LAKE CALUMET



4

We have a lot of
“*novel ecosystems*”.

“A *novel ecosystem* is simply an assemblage of species and environmental conditions that have never before existed in a landscape, caused by climate, human activities, or stochastic events.”

– Zweig, Wiley & Kitchens, recent article in *Restoration Ecology*

- Not pre-settlement
- VVP – American bittern
- USGS – Bob Kay
- Amount of fill



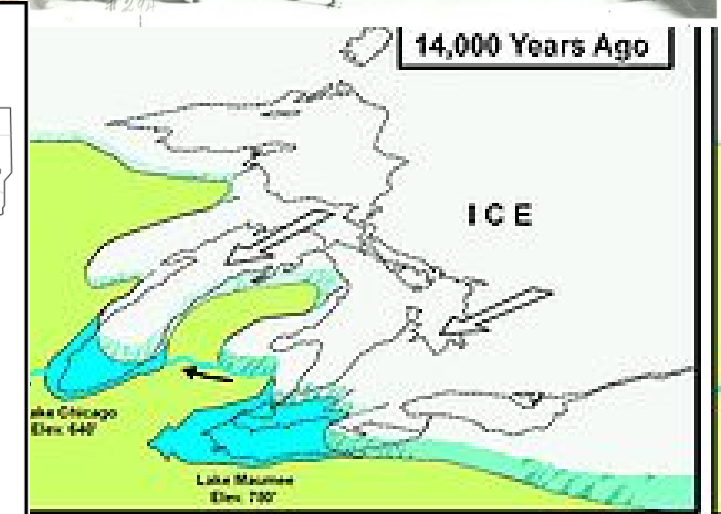
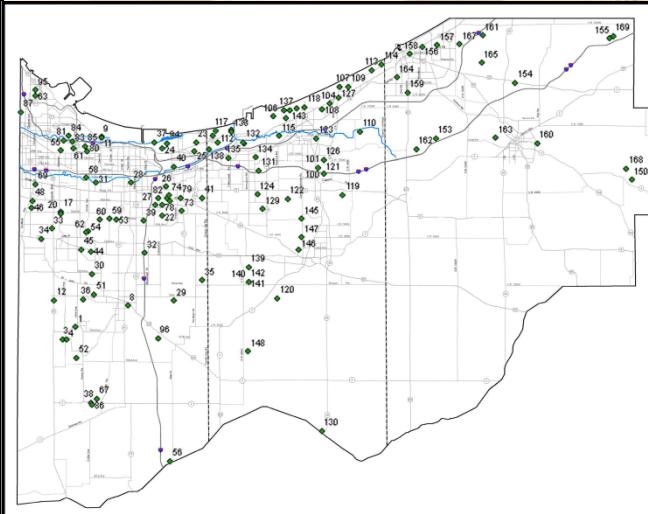
“*Reconciliation Ecology* is the science of inventing, establishing and maintaining new habitats to conserve species diversity in places where people live, work or play.”

— *Michael Rosenzweig, author of Win-Win Ecology*



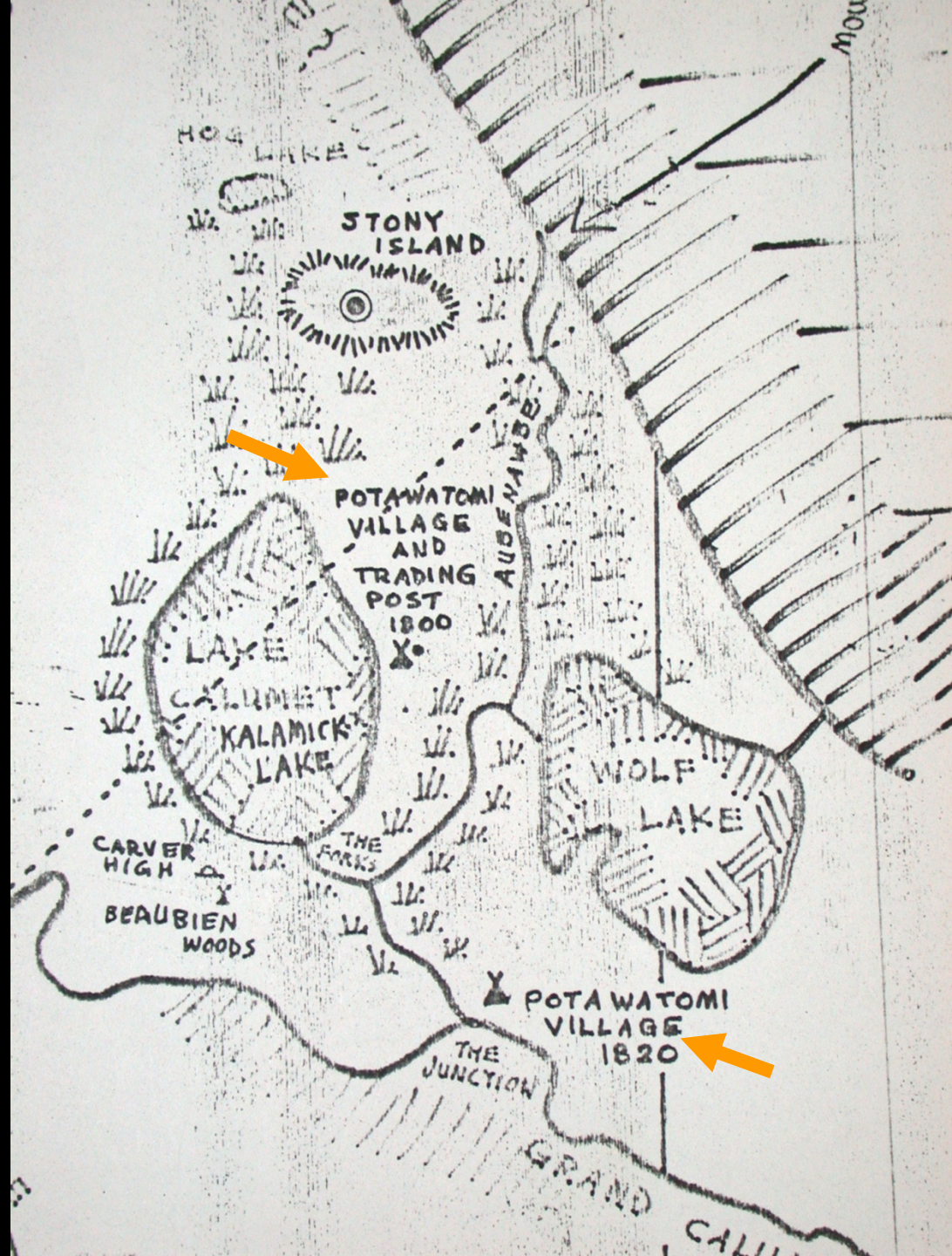
5

Need to be able to do a better job of telling our regional story...





Projectile Points, Indiana Dunes



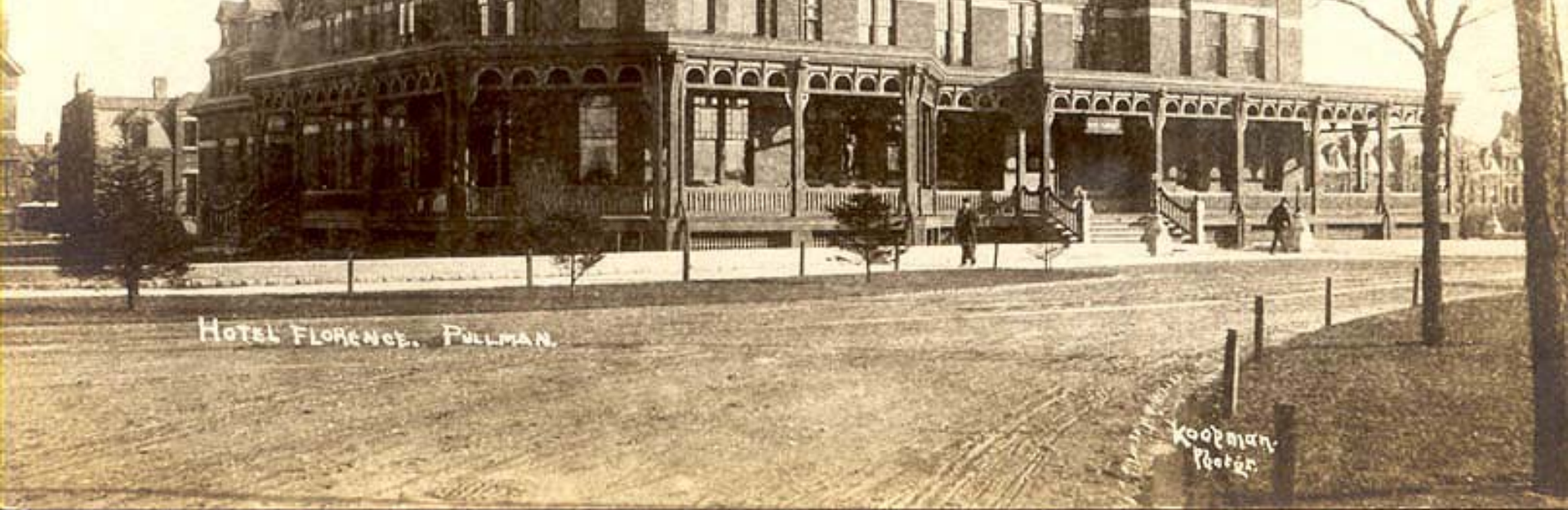


Wolf Lake Hunters



©1998 Theodore Roosevelt Collection
Harvard College Library

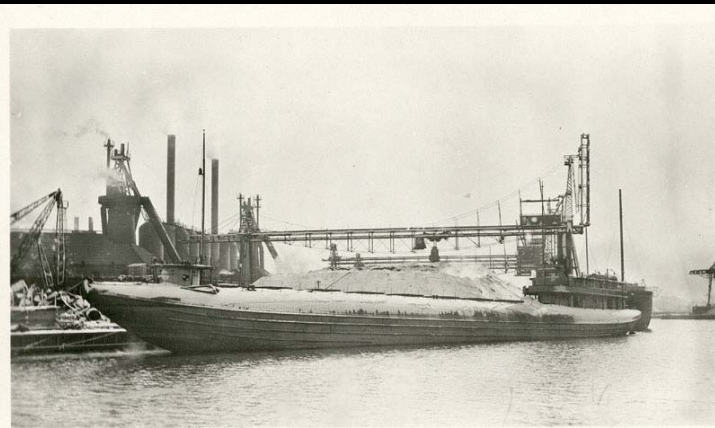
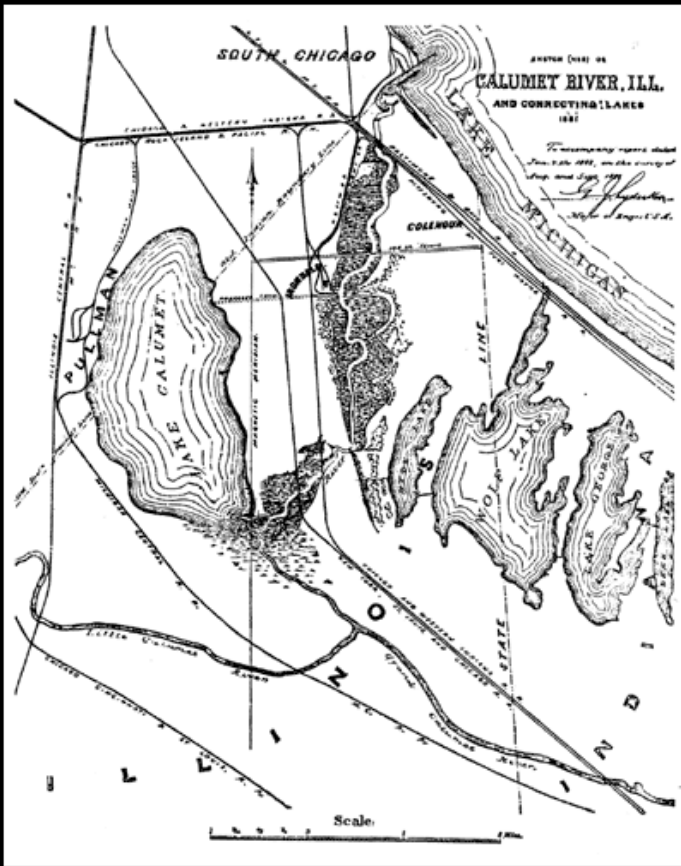
Teddy Roosevelt, early 1900s,
Hotel Florence



HOTEL FLORENCE. PULLMAN.

Koopman
Phot.







Ore boats, Rialto Grain Elevator (built c. 1902) and flour mill along Calumet River slip near 104th St. (c. 1915)



SOUTH CHICAGO, ILLINOIS: Crib work ready for concrete superstructure, built for the Illinois Steel Company's plant on Calumet River.

US Steel – Great Lakes Dredge and Dock Company
construction at IL Steel- ready for concrete (c. 1912)

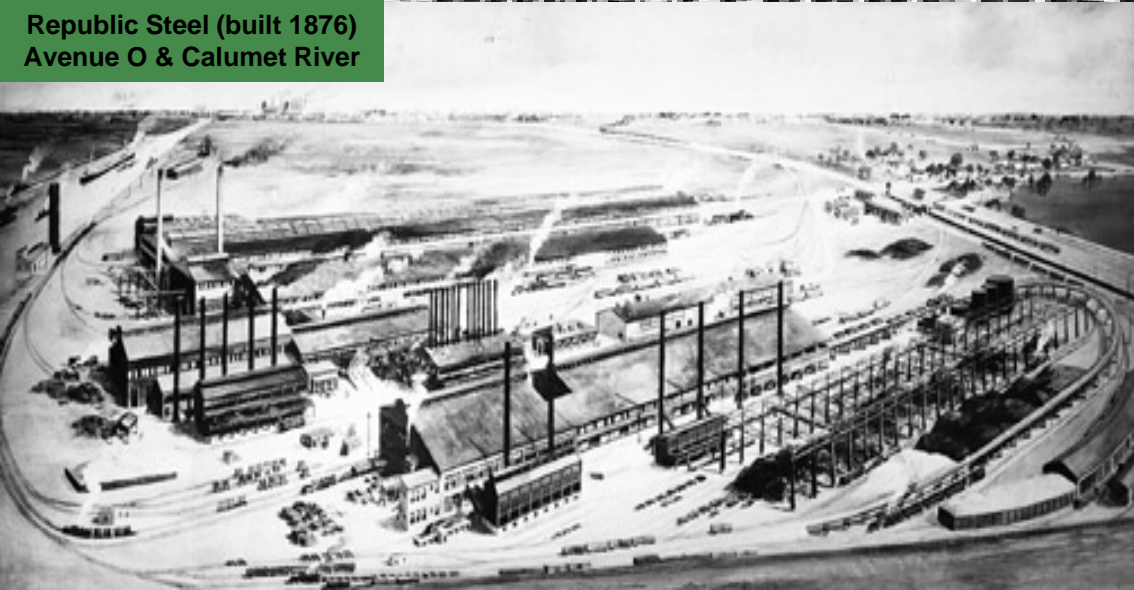


Mouth of the Calumet River – Calumet Park, Youngstown Steel; bottom left is South Slip of US Steel (1960s)

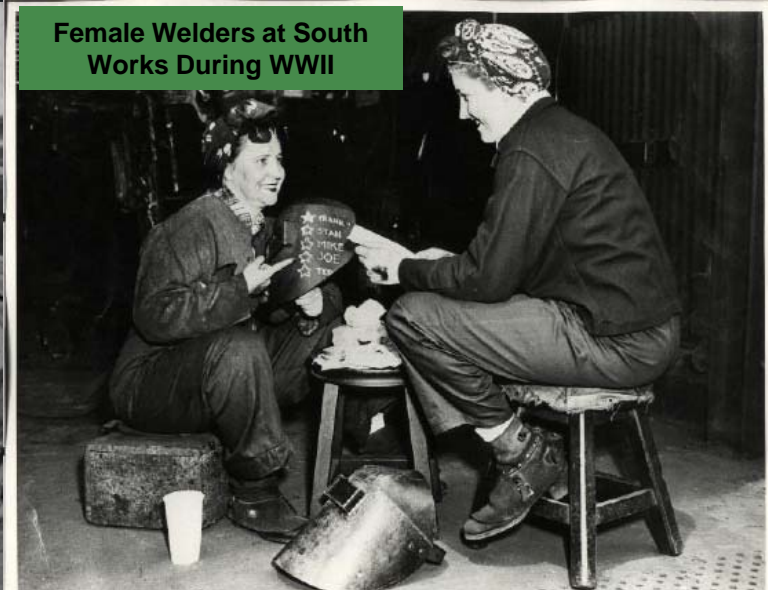
Acme Steel Coke Ovens



Republic Steel (built 1876)
Avenue O & Calumet River



Female Welders at South
Works During WWII





LOST TIME ACCIDENT = INJURY
 PREVENTING A MAN WORKING ON HIS
 REGULAR JOB THE FOLLOWING DAY

FIVE YEAR RECORD
 LOST TIME ACCIDENTS
 FOR EACH MONTH OF THE YEAR

JANUARY	1
FEBRUARY	1
MARCH	1
APRIL	1
MAY	1
JUNE	1
JULY	1
AUGUST	1
SEPTEMBER	1
OCTOBER	1
NOVEMBER	1
DECEMBER	1
TOTAL	12

BEH 1929

**WISCONSIN STEEL WORKS
 BLAST FURNACES**
 THE ONLY PLANT OF ITS KIND
 IN THE WORLD
 576
 837
 A YEAR'S RECORD OF A
 SAFE YEAR

ONE YEAR

J. J. FEIN PHOTO.
 CHICAGO

Yours for a Safe New Year
W. E. Brewster
 Jan 1 - 1929

Wisconsin Steel Blast Furnace Crews (late 1920s)

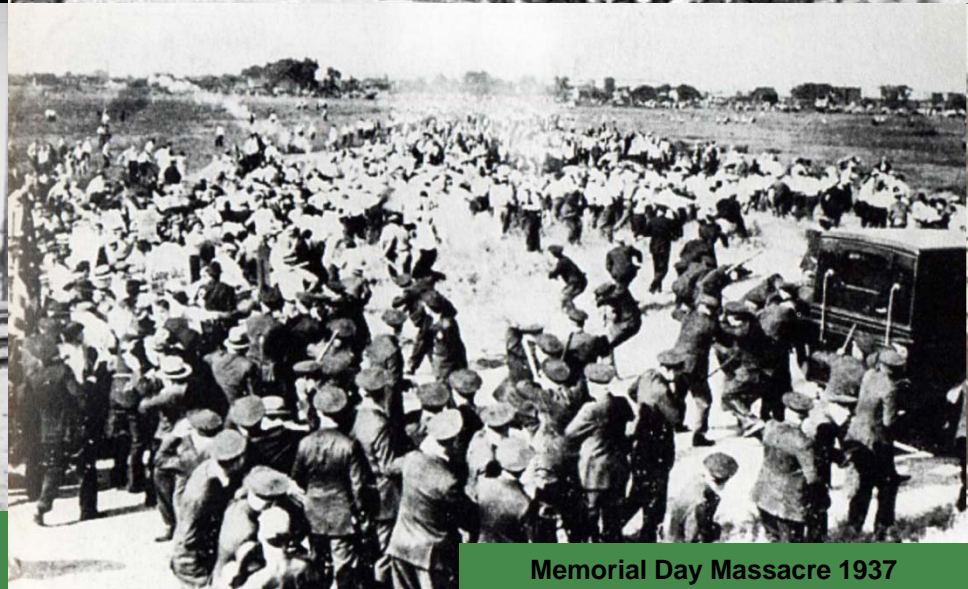
Immigration on Chicago's Southeast Side

- Polish
- Irish
- Yugoslavian
- Czechoslovakian
- Swedish
- Serbians
- Slovenians
- Italian
- German
- Croatian
- Austrian
- Mexican (~1926)
- African American (post WWII)

St Archangel Michael
Serbian Orthodox Church



100th Street Train
Station c. 1900



Memorial Day Massacre 1937



Indiana Dunes



NATIONAL
LAKESHORE

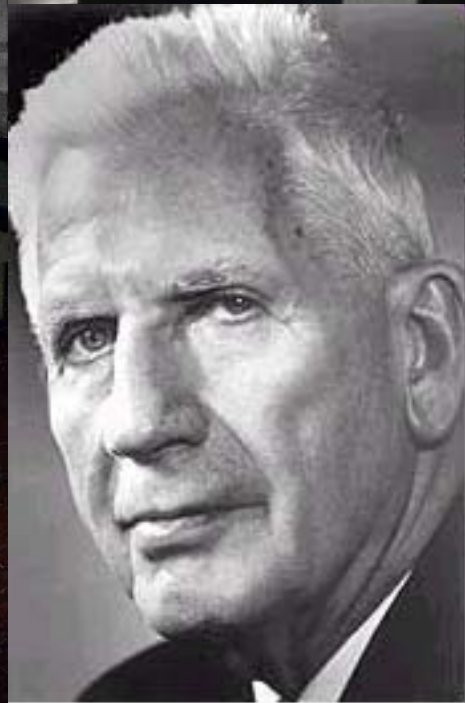
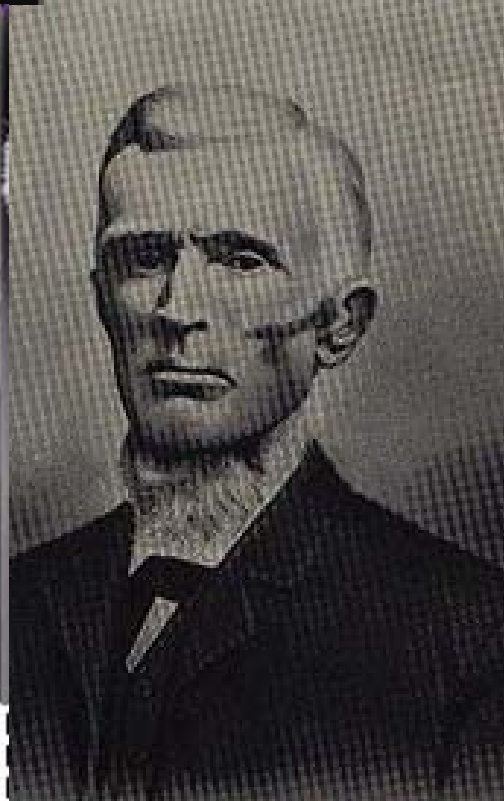
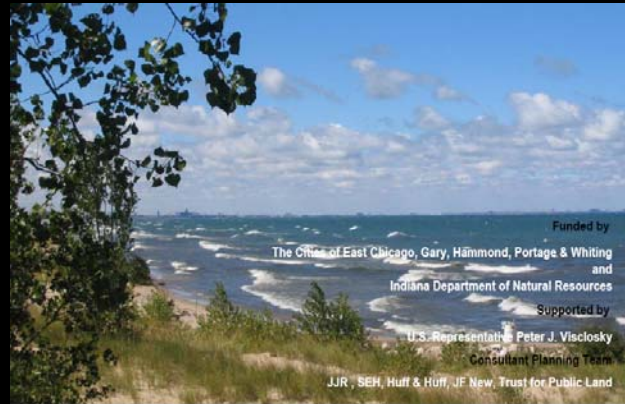


Photo from University of Illinois
Institute of Government and
Public Affairs website





Funded by
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 Indiana Department of Natural Resources
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 U.S. Representative Peter J. Visclosky
 Consultant Planning Team
 JJR, SEH, Huff & Huff, JF New, Trust for Public Land

2006 GLC Conference Indiana's Lakeshore Reinvestment Strategy The Marquette Plan

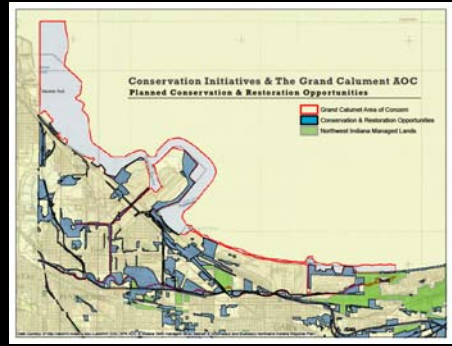


LAND MANAGEMENT
 Green: CBA Management Sites
 Light Green: Other Open Space

THE CALUMET AREA
 ECOLOGICAL MANAGEMENT STRATEGY
 PHASE I SITES

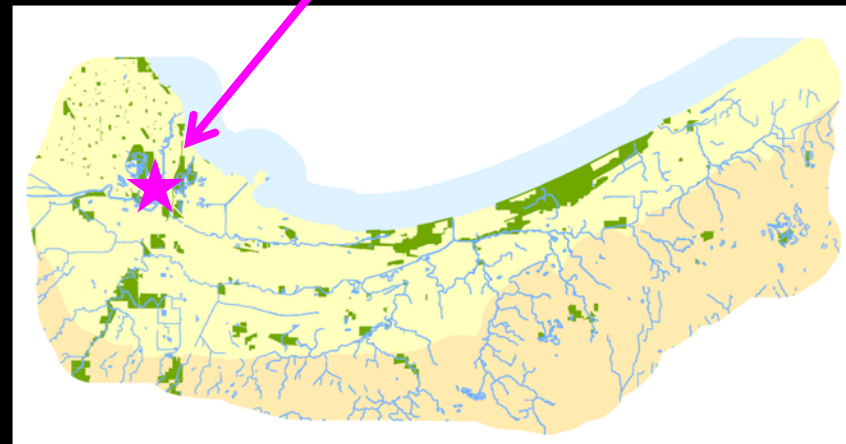
CITY OF CHICAGO DEPARTMENT OF ENVIRONMENT
 CHICAGO'S ENVIRONMENTAL FUND
 ILLINOIS DEPARTMENT OF NATURAL RESOURCES

with assistance from
 U.S.E.A. Forest Service North Central Research Station
 WJ Consultants, Ltd.

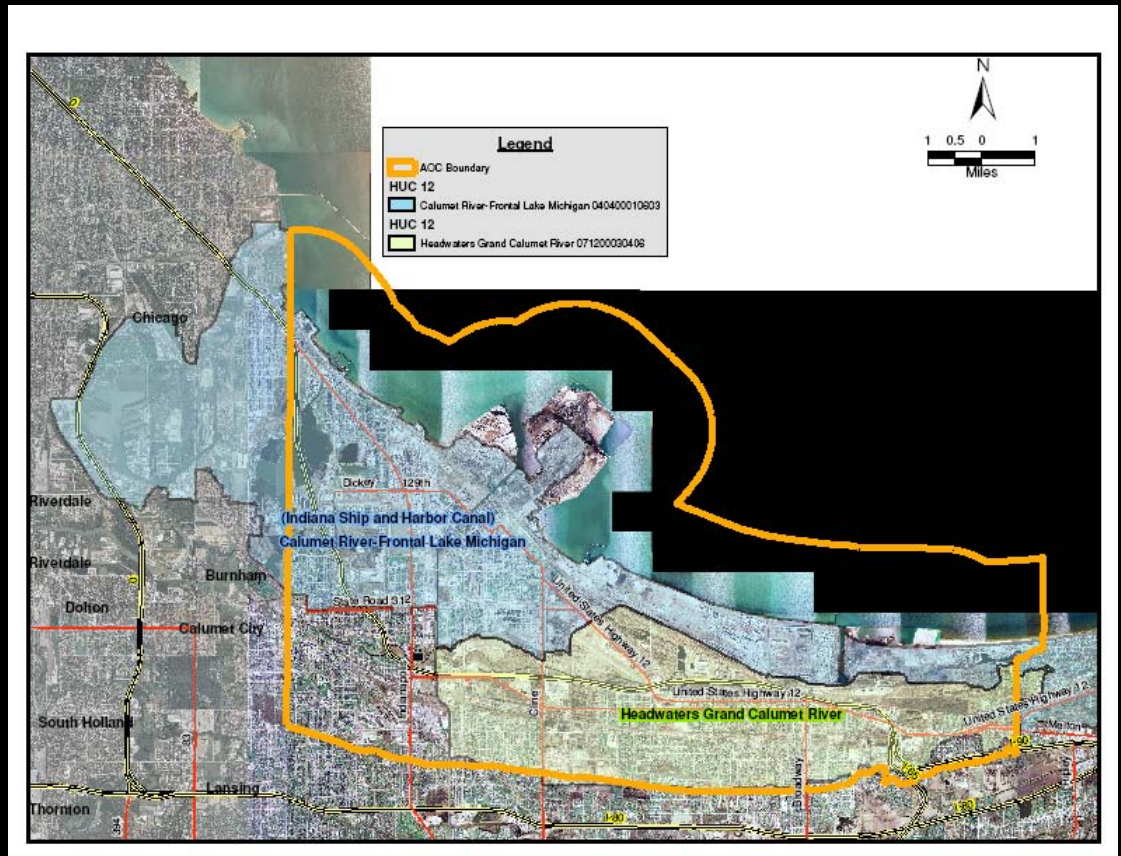




When we tell our story we need to show how our projects fit into the greater Calumet vision.



...so we are primed for opportunities.



- Grand Cal AOC
- GLRI

6

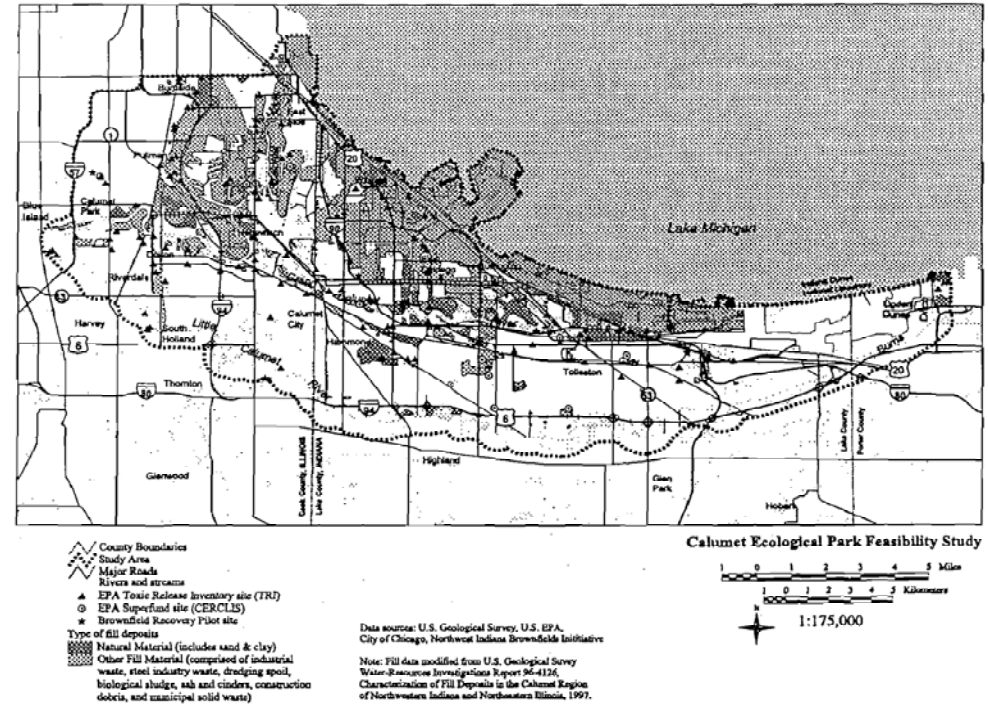
Perception.



7

Contamination has impacted many of our open spaces.

MAP 8: EPA REGULATED FACILITIES, BROWNFIELD SITES, AND FILL AREAS



BBC NEWS

Extreme bugs found in slag dump

The world's most alkaline lifeforms are living in contaminated water in the US.

Scientists found microbial communities thriving in the slag dumps of the Lake Calumet region of southeast Chicago where the water can reach a pH of 12.8.

Living in this extreme environment is comparable to swimming in caustic soda or floor stripper, the researchers say.

They found the microbes while studying contaminated groundwater created by more than a century of industrial iron slag tipping in Illinois and Indiana.



8

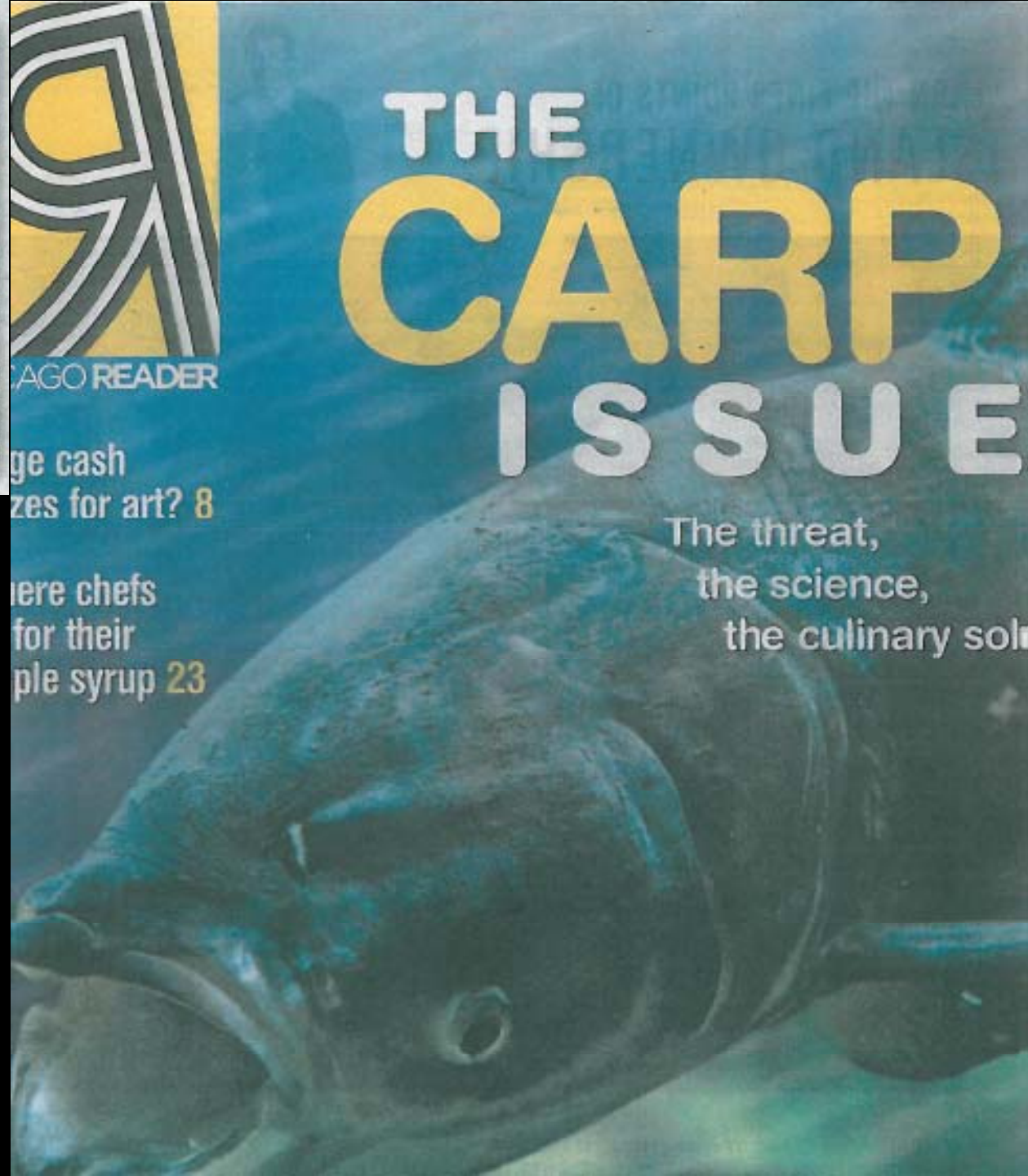
Many of our projects are hard to fund due to being “oddballs.”



9

It's hard to draw positive public attention to all of this.





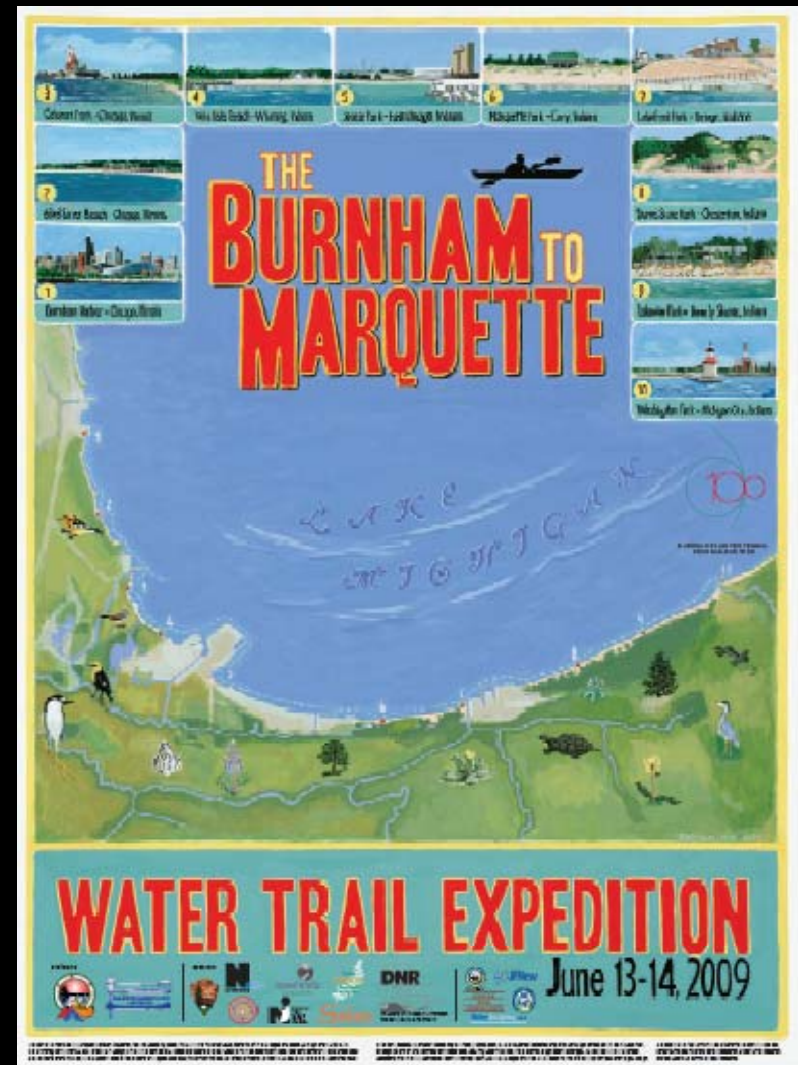
10

People need help understanding regional geography.

11

Sixty municipalities,
five counties.

Coordinating
between
municipalities is
challenging...
yet so
worthwhile.



NWIPA Burnham to Marquette Water
Trail Expedition 2009

2010: to IN to MI on Aug 21/22

12

We need to do a better job of connecting with elected officials.



13

Municipalities
and others
need more
tools and
resources to
help the
environment.



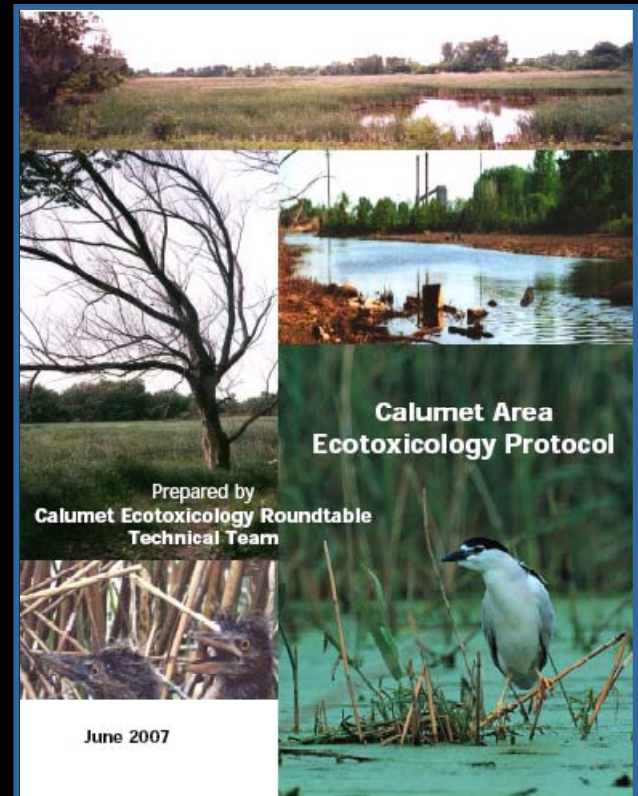
Green Infrastructure Vision
Chicago Wilderness

14

Chicago Department of Environment
US Environmental Protection Agency
US Fish and Wildlife Service
Illinois Department of Natural Resources
Illinois Environmental Protection Agency
Illinois Natural History Survey
Chicago Park District
Forest Preserve District of Cook County
Waste Management and Research Center



Government agencies
might need to take
unprecedented but
necessary steps to
address challenges.



15

Environmental Justice is a challenge.



People for Community Recovery



Cheryl Johnson and reporters



Barack Obama at Altgeld Gardens

16

The region
needs jobs.

Our open
spaces need
help.

Answer:

Green jobs.



17

We need
Calumet-based
research to
inform the work
of land
managers and
planners.

"A Comparison of Jump
Performances of the Dog Flea
and the Cat Flea, *Veterinary
Parasitology*, 2000

"On Human Odour, Malaria
Mosquitoes, and Limburger
Cheese," *The Lancet*, 1996

"The Effect of Country Music on
Suicide", *Social Forces*, 1992

*From the Annals of Improbable
Research (managers of Ig Nobel Prizes)*

Calumet Research Wish List

Flora and Fauna

- Baseline Inventories – all species
- Invasive Species Regional Mapping and Priority Treatment Zones
- Contamination in flora and fauna
- Monitoring programs pre- and post-restoration
- Ecotoxicological Conceptual Site Models for each site (species interactions)
- Elk Sedge and Golden Sedge – Plants of Concern program
- Tiger Salamanders at Hegewisch Marsh vernal pools
- Hines Emerald Dragonfly reintroduction
- Beaver study
- *Thismia americana*



Calumet Research Wish List

Soil / Substrates

- What natives will grow in slag environments?
- Evaluation of Peoria Sediments and Biosolids in various mixes with sand and topsoil – how natives perform in each
- Study of native seed bank

Hydrology / Hydraulics

- Ongoing monitoring
- Modeling of proposed water control structures / impact to system

Remediation

- Assessment of open spaces and options for phytoremediation (including what will/won't be remediated, costs, etc)



Calumet Research Wish List

Climate Change

- Modeling impacts of climate change on Calumet open spaces
- Do natives help wetlands serve as carbon sinks more than invasives (carbon, nitrogen and sulfur cycles)

Humans

- Sample fish throughout the area and evaluate options for modifying outreach programs
- How to prevent illegal off-roading at the site – site evaluation for dedicated space?
- How to handle nuisance species (ex: beaver) and public outreach?

Jobs / Economy

- Valuation of ecosystem services - critical to long-term sustainability
- Opportunities for green jobs
- Creation of Technical Team to serve local industry – advise on stormwater management, sustainable operations, waste stream reuse, natives, invasives control



18

The regional
environmental
movement has
changed...to
some extent.

Need to be as educated as possible
about our issues to have productive
conversations between government
agencies, industry, and residents to
the extent possible.

19

Lots of plans.
Now, action!



“Do or do not...there is no try.”

- Jedi Master Yoda at Acme Steel Coke Plant

20

So many organizations.



- Mission overlap – can we streamline resources?
- Opportunities to combine
- What are we missing – gap analysis
- **Board member burnout**

CSI is our best bi-state forum right now.

- Social Media
- CSI – 501(c)3?
- Expanded communications hub



Southeast Chicago Natural Areas Tour

By Jerry Atere, WRD Environmental

You may have heard this phrase before – “the Calumet region holds some of the most significant natural areas in the upper Midwest,” but have you actually visited some of them? On October 22, 2009, 41 participants from Illinois and Indiana were able to do just that. Members of the Calumet Stewardship Initiative hosted a bus tour of some of these ecologically significant natural areas in southeast Chicago. The tour centered on wetlands and land managers from northwest Indiana and was essentially a mix of a tour of wetlands and natural areas that took place on September 22, 2008.

Co-located sponsored by the Gaylord and Dorothy Donnelly Foundation, the tour began with a hike through Hegewich Marsh to observe the many changes that have occurred since the site received National Coastal Wetlands Conservation funding for restoration in 2006. Nicole Kania, Program Director for the Chicago Department of Environment's Calumet Initiative, pointed out key results from the project, such as non-native and invasive plant species removal, the installation of native seed mats, the establishment of 1.2 miles of snaggled trunk, and the installation of 175 native trees and 75 native shrubs to date.

The group then enjoyed a hike through Pevsner Park – a state and local site with over 70 species of plants. Alice Rowden, Conservation Director from Forest Preserve, and her volunteer stewards have been focusing on tree disease since 2006.

Since they effectively closed invasive plant species including buckhorn, as well

as reducing native shrubs that are no longer due to lack of maintenance.

A brief lunch was held under a picnic shelter in the wetlands shore of Wolf Lake due to inclement weather. While participants ate, Mike Ross, Executive Director of the Association for the Wolf Lake Initiative, provided a synopsis of the lake's history. With approximately 84 acres of surface water (41.9 acres in Illinois and 38.5 in Indiana), the lake has undergone various forms of environmental damage, such as filling for development and sedimentation.

Despite this, the lake is a haven for numerous fish species, like endangered lake sturgeon and non-threatened banded killifish, as well as providing nesting sites for birds like the endangered black-crowned night heron and yellow-headed blackbird.

The next half hour was spent driving by notable sites, including Eggers Grove, Hyde Lake Wetlands, Indian Ridge Marsh, Henry Pond, and Big Marsh. Restoration efforts are directed at successions in Indian Ridge Marsh in the summer of 2010.

Participants received a new tour on this tour – a clear, unobstructed view of Lake Calumet from Harborside International Golf Center. The lake remains a vital habitat for birds and fish in the region.

The last stop was Sausheim Woods Forest Preserve, managed by the Forest Preserve District of Cook County in partnership with the Field Museum and the Calumet Stewardship Initiative. This 89-acre wetland is home to 165 bird species that have been identified by ornithologist Doug Sore of the Field Museum. Laurel Ross, Urban Conservation Director at the Field Museum, led a hike to see the areas that have

undergone restoration. A lack of regular fire management has allowed brush to choke the site, but with regular clearing of invasive woody and herbaceous plant species by volunteer stewards and interns, the site is slowly but surely returning to nature what it may have been like long ago. The Field Museum adopted this site in 2005 to provide a venue for stewardship projects for students from Mighty Action, Earth Force, and Calumet My Backyard (CMBY).

The sites visited on the tour were chosen to show the variety and size of some important natural areas that exist in southeast Chicago. In addition, they demonstrate how partnership and shared best management practices can transform the quality of wetlands and other open spaces on a regional scale.

Much is to be learned from one another and much remains to be done. 2010 therefore presents us with a renewed opportunity to join forces and ensure new efforts to not only preserve these valuable habitats for nature, but to provide recreational and educational benefits to the community.



Work Bureau of Chicago State University sets the context of the Calumet region at Hegewich Marsh. Photo credit: Kevin Murphy.



How do we
grow the next
generation of
leaders?



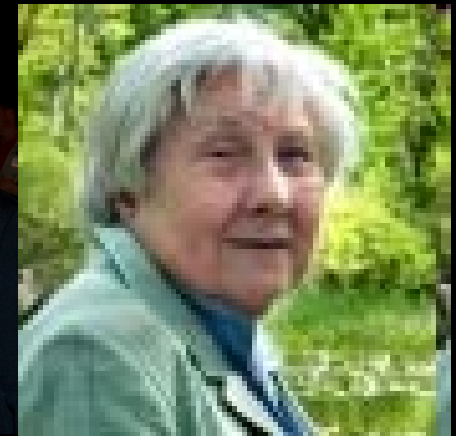
Marian Byrnes



Mark Reshkin



Herb & Charlotte Read



Lee Botts

- Hazel Johnson
- Bob and Marian Kelliher
- Polly and Nat Silberman
- And more...



Please pick at least one question to answer. Use the notecards on your table and include your name, organization and question #. Leave the notecard on the table - it will be collected later. Thank you.

1

HOW: How do we define progress on natural resource issues in the Calumet region? What are the biggest barriers to progress and how can we overcome them?

2

WHAT: What needs to happen next (specific actions, specific projects) to advance natural resource conservation efforts in the region? How can current efforts be extended or expanded?

3

WHO: What are you personally interested in working on – by yourself or in collaboration with others? What would your organization be interested in working on? What other partners do we need to engage now?

We Can Do It!



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