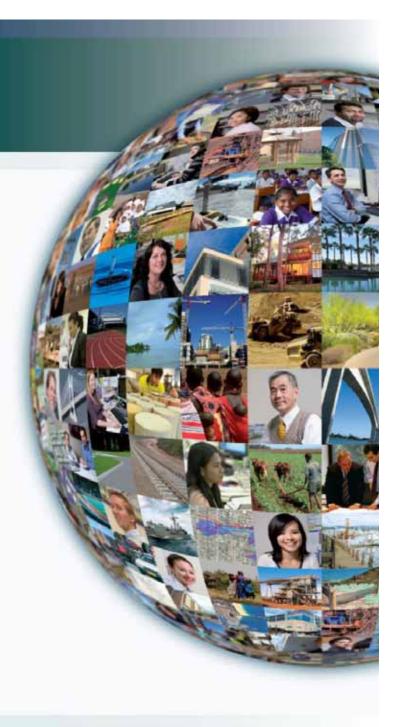


Shaping the Future

Indiana Toll Road Mitigation

Greg Quartucci

Cardno JFNew Senior Ecological Resource Specialist 3





The Players

- ITRCC Indiana Toll Road Concessionaire Company
- ITRC Indiana Toll Road Construction Company
- Regulatory agencies
- Local conservancy groups
- Consultants



The Project

- Leased portion of Indiana Toll Road
- Add lanes project required by contract
- Wetland impact 1.0 acre
- Mitigation required



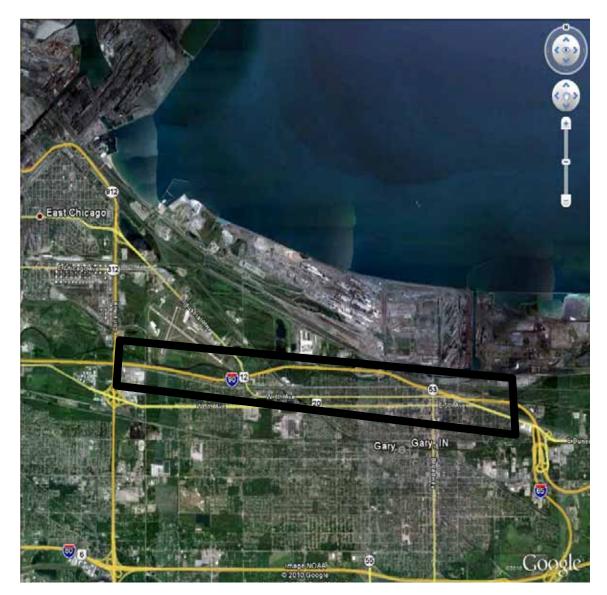
Geographic Location

SITE CHARACTERISTICS

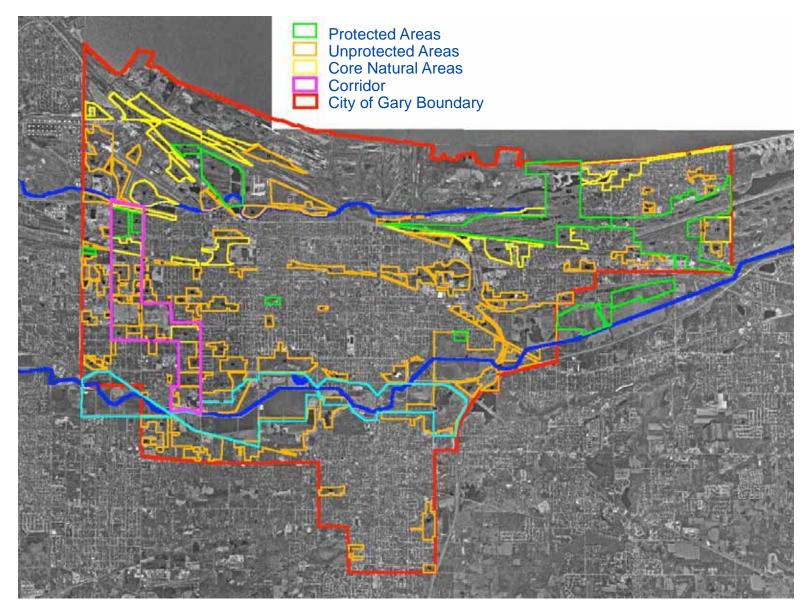
- Southern tip of Lake Michigan
- Fire dependant community
- Sandy substrate
- Water table fluctuation
- 130 endangered species in Lake Michigan watershed







Gary Natural Areas





The Setting

- 27,000 Acres of dune and swale Now 2000
- Low linear beach dunes and intervening swales
- Wetlands and black oak savanna
- Mixing of ecotones high biodiversity



Identification of Mitigation Alternatives

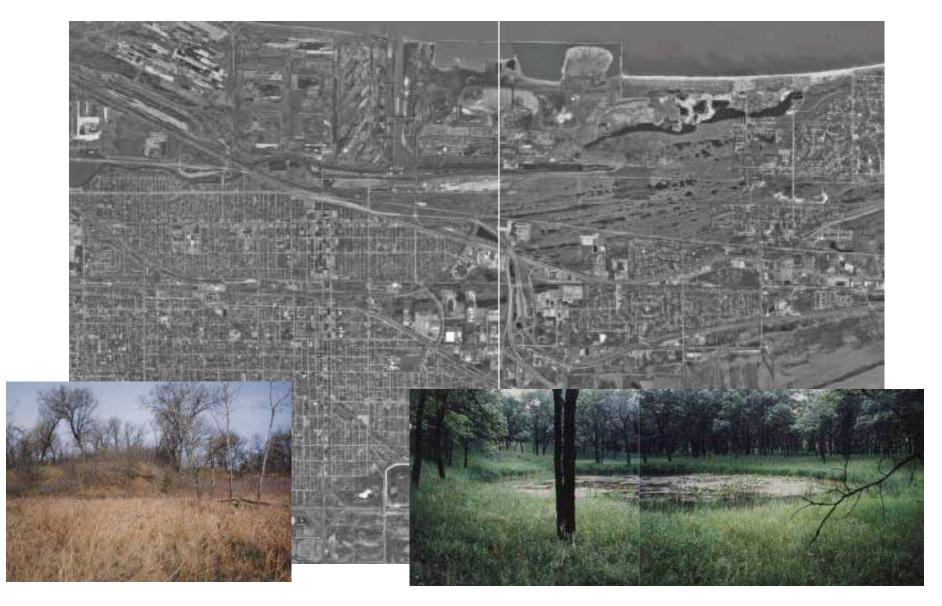
- Wetland bank
- Oak savanna restoration
- Grand calumet river
- Dune and swale
- Prairie
- Habitat restoration



Process

- Meetings with regulators
- Meeting with conservancy groups
- Meeting with client
- Consensus

Dune & Swale Topography





Mitigation Proposed & Accepted

- 1.0 Acre of prairie restoration
- 1.0 Acre of dune and swale restoration
- 1.5 Acres of wetland bank credit



Prairie Restoration

- Prairie near cline avenue
- Restore 1.0 acre instead of swale
- Sand prairie



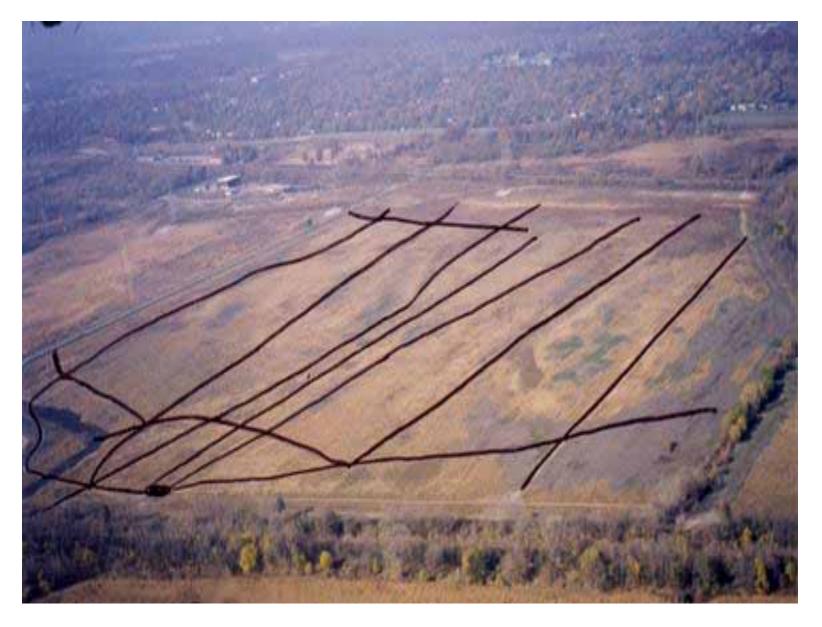




- 200 plus acres
- Farm field conversion
- First Indiana bank

400 0 400 800 1200 1600 2000 2400 Feet









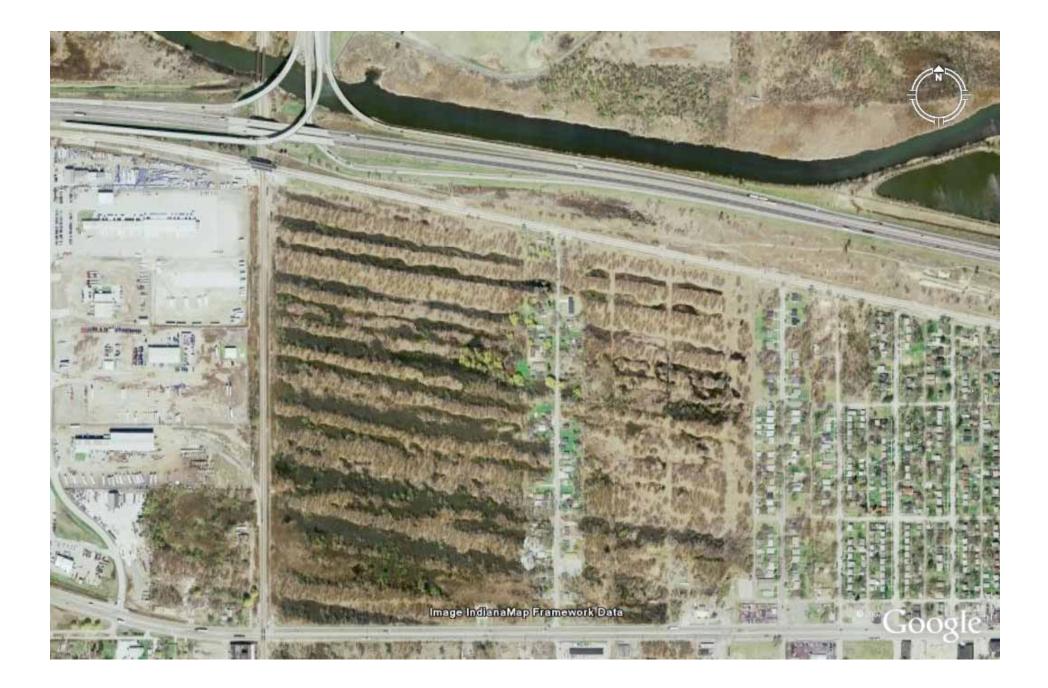
Ivanhoe Dune & Swale Restoration

- Restoration of residential lots
- 297 species with a 90 native FQI
- C Value high
- Karner Blue Butterfly



Ivanhoe Dune & Swale Restoration











2011 Update

- Prairie mitigation US EPA
- Dune and swale completed in Spring 2011.
- Dune and swale monitoring
- 2012 Plans

















Before & After





Keys to Success

- Early Coordination
- Cooperation with Local Entities
- Locally Focused Mitigation







Direct Additional Questions to:

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