

Indiana Toll Road Mitigation

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The Players

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

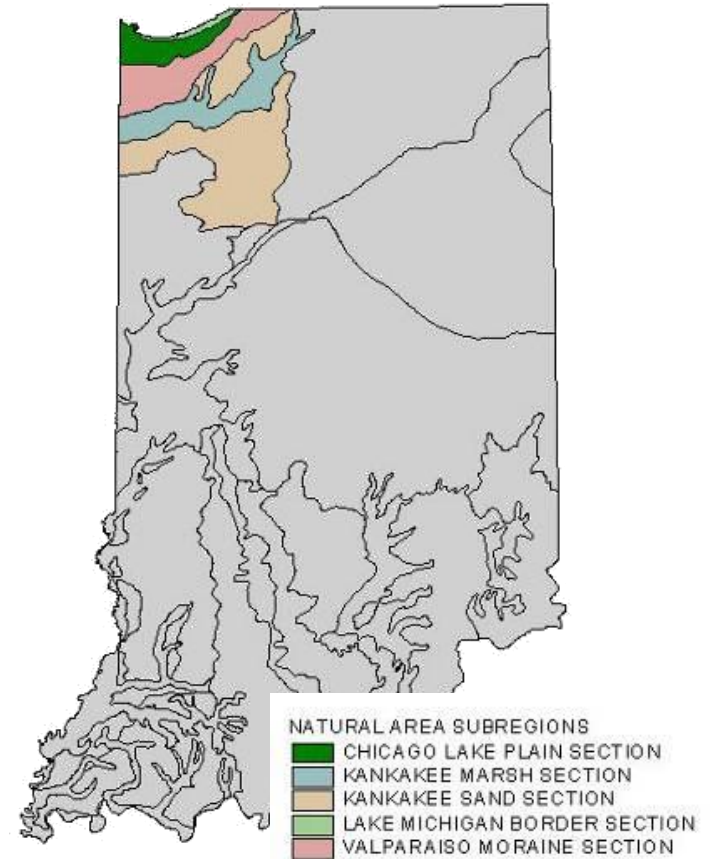
The Project

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

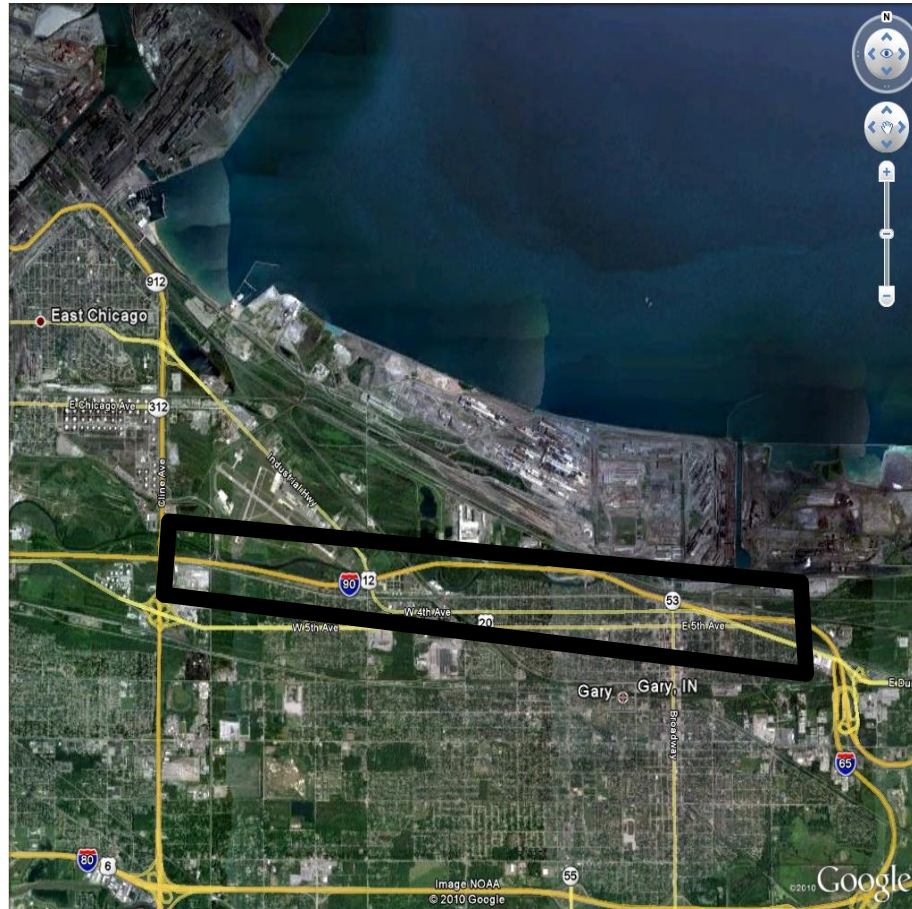
Geographic Location

SITE CHARACTERISTICS

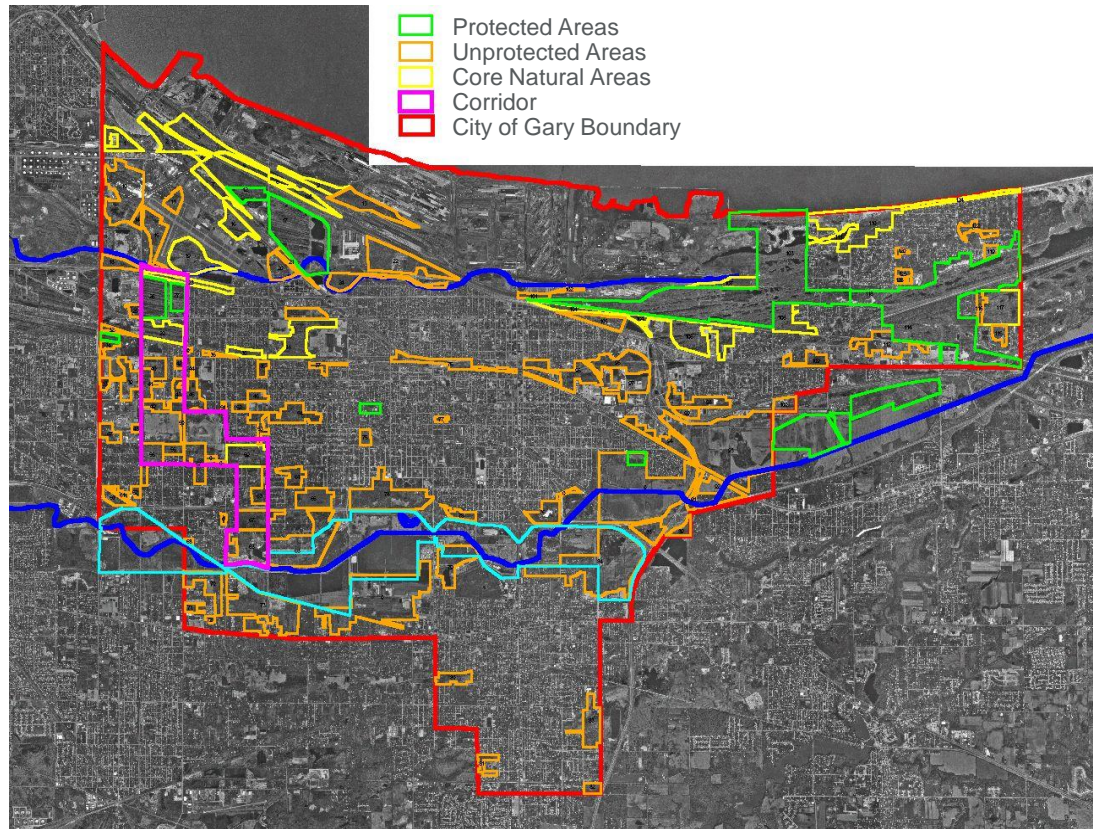
- > Southern tip of Lake Michigan
- > Fire dependant community
- > Sandy substrate
- > Water table fluctuation
- > 130 endangered species in Lake Michigan watershed



Project Area



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 and 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

Prairie Restoration



Prairie Restoration



Lake Station Wetland Bank

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

Lake Station Wetland Bank

400 0 400 800 1200 1600 2000 2400 Feet



Lake Station Wetland Bank



Lake Station Wetland Bank



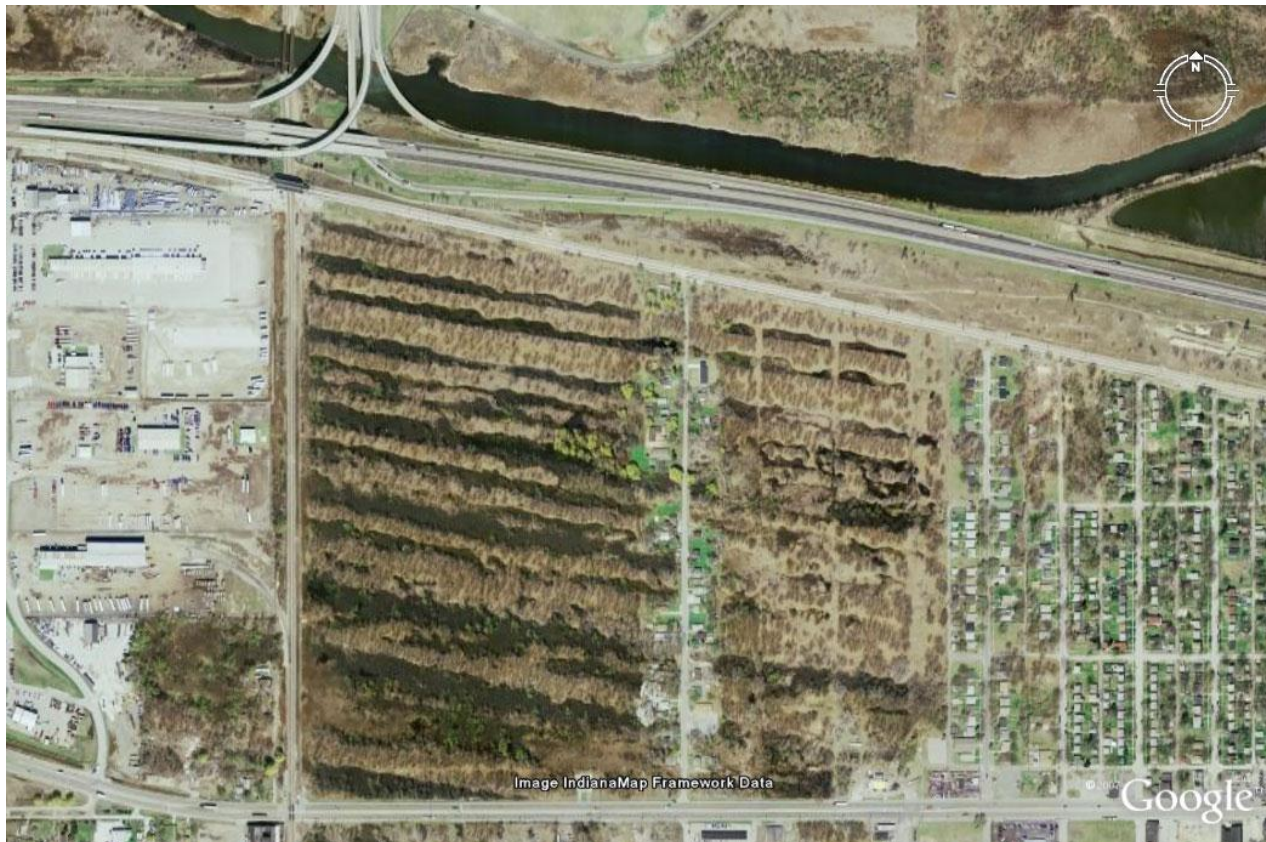
Ivanhoe Dune & Swale Restoration

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

Ivanhoe Dune & Swale Restoration



Ivanhoe Dune & Swale Restoration



Ivanhoe Dune & Swale Restoration



Ivanhoe Dune & Swale Restoration



2011 Update

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

Dune and Swale Restoration



Dune and Swale Restoration



Dune and Swale Restoration



Dune and Swale Restoration



Dune and Swale Restoration



Dune and Swale Restoration



Dune and Swale Restoration



Before & After



Keys to Success

- > Early Coordination
- > Cooperation with Local Entities
- > Locally Focused Mitigation
- > Questions?

Direct Additional Questions to:

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