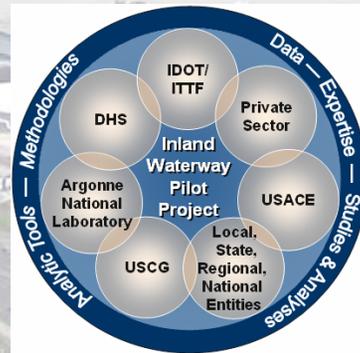
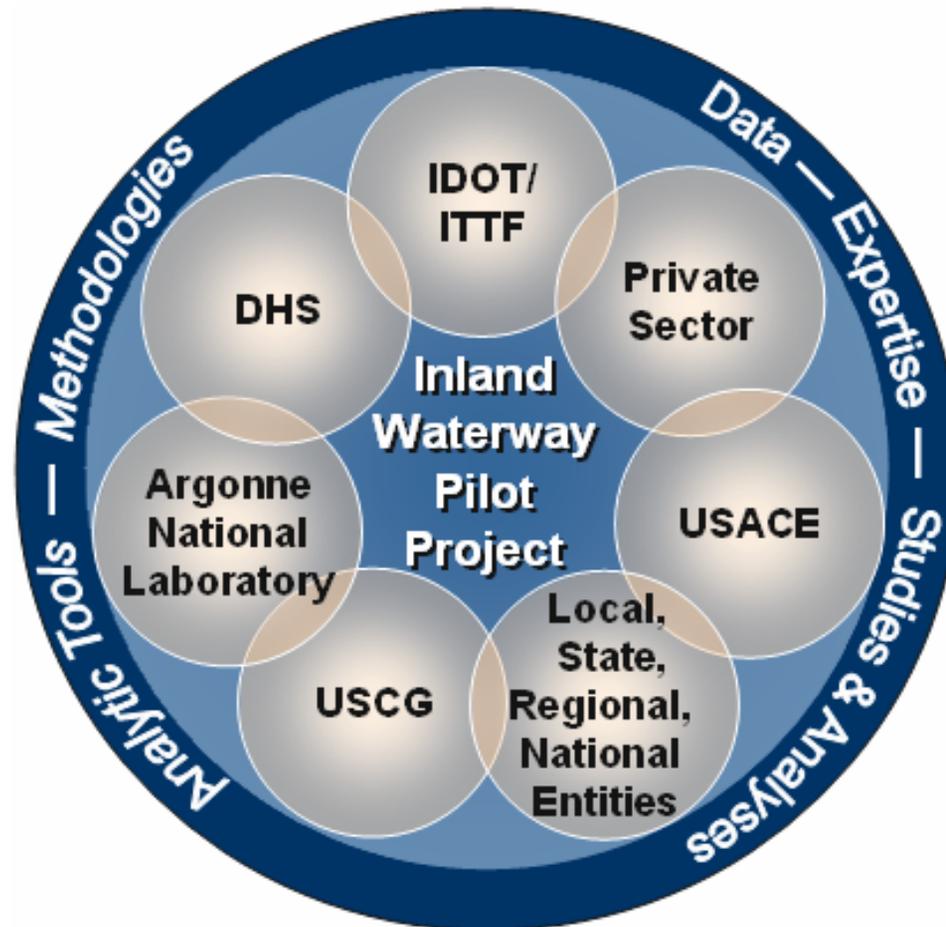


Inland Waterway System Cascading Impact Pilot Project



August 2007

Pilot Project Is a Partnership Among State, Federal, and Private-Sector Organizations



Pilot Project Objectives

- **Develop an “end-to-end” systems analysis methodology for inland waterways that incorporates:**
 - **Infrastructure interdependencies**
 - **Cascading impacts**
- **Leverage available state, federal, and private-sector data, methodologies, tools, expertise, and existing studies**
 - **Minimize duplication**
 - **Ensure broad acceptance and applicability**
- **Apply methodology to a portion of the Illinois River**
 - **Pilot test and refine methodology**
 - **Address problem of importance to ITTF and other partners**

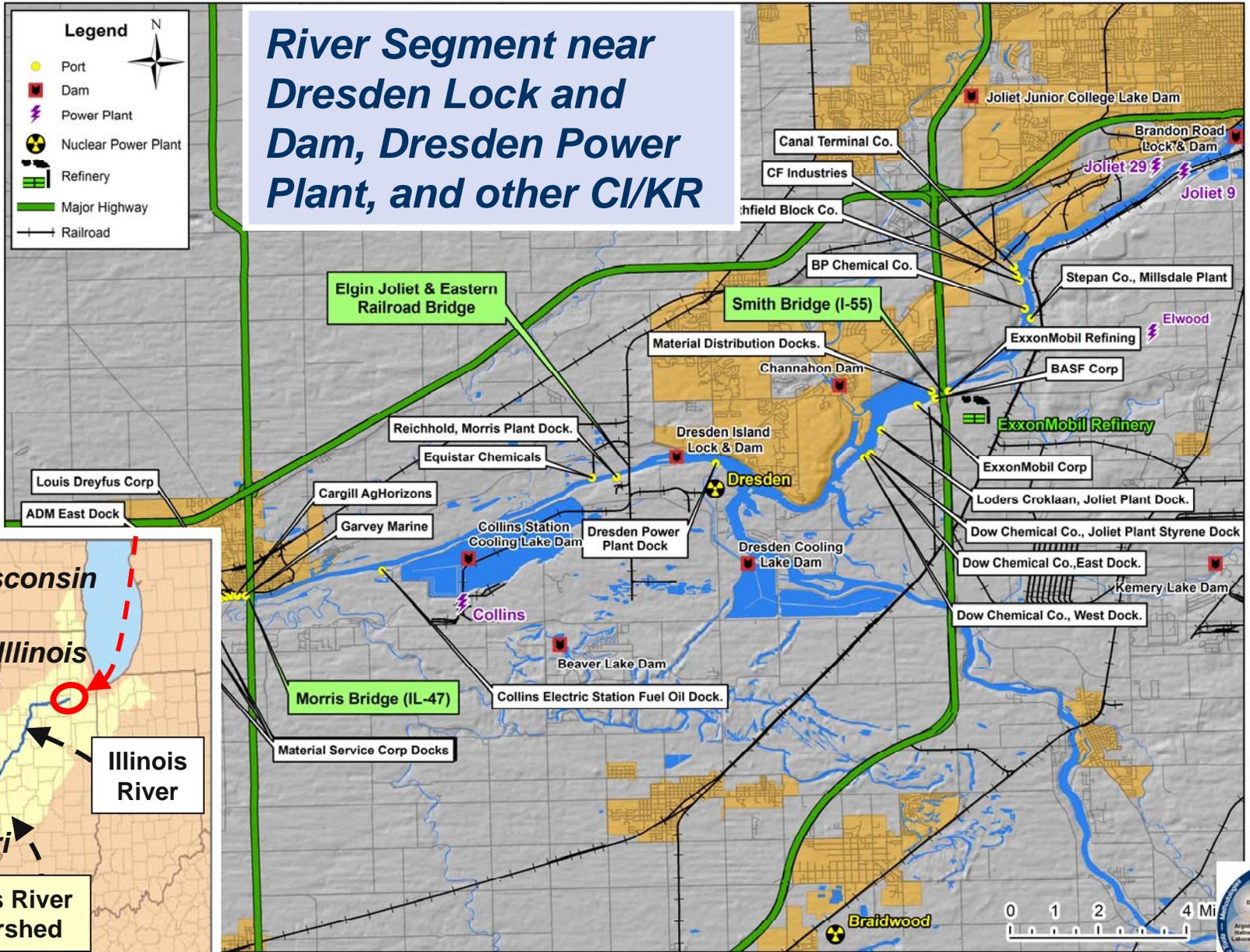


Initial Pilot Project Focus

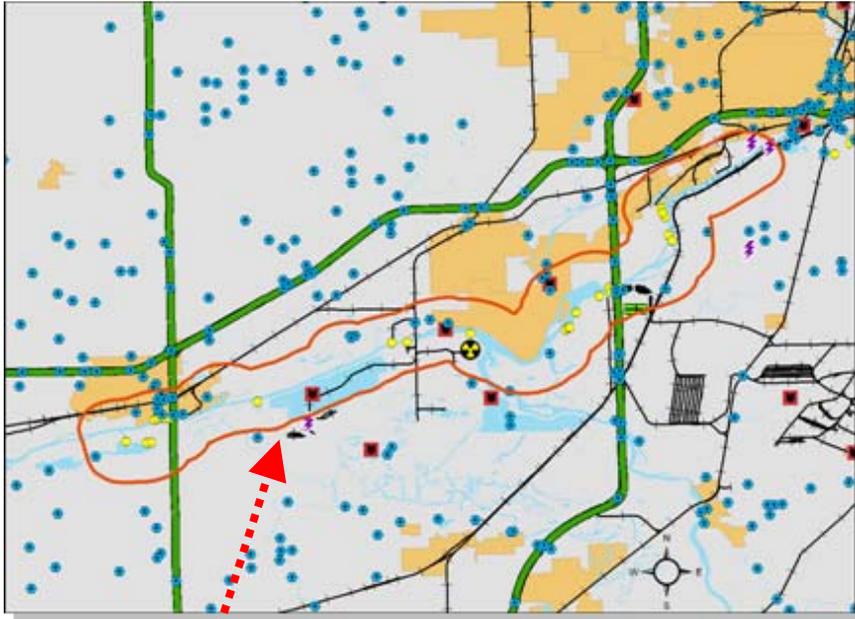
- **Stress consequences, not threats or vulnerabilities of specific assets**
- **Examine cascading economic impacts of disruption to waterway**
 - Direct and indirect economic impacts
 - Restoration sequences and workaround solutions
 - Duration of disruption
- **Identify supply chains**
 - Commodity movements and usage
 - Alternative transportation modes
- **Capture interdependencies among critical infrastructure and key resources**



Pilot Project Scope



Examples of Key Infrastructure Within a One Mile Buffer of Pilot Study Segment of Illinois River



"Buffer Area"

- Dams: 3
- Ports: 26
- Highway River Crossings: 3
- Railroad River Crossings: 1
- Agricultural facilities: 13
- Chemicals Industry: 11
- Schools: 4
- Hazmat Locations: 8
- Emergency Services: 10 (EMS, Fire & Police Stations)
- Electric Power Plants: 3 (1 Nuclear, 1 coal, 1 coal/oil/gas)



Identification and Evaluation of Data Sources

Evaluation Criteria

Open Source

Private Sector

Commercial

State (IDOT, ITTF, ...)

Federal (DHS, USACE, USCG, TSA, ...)

Pilot Study



Development of Systems-Level Analysis Methodology

- **Leverage existing methodologies***
 - **DHS (SAV, RAMCAP, CR, End-to-End Systems, ...)**
 - **USCG (MSRAM)**
 - **USACE**
 - **TSA**

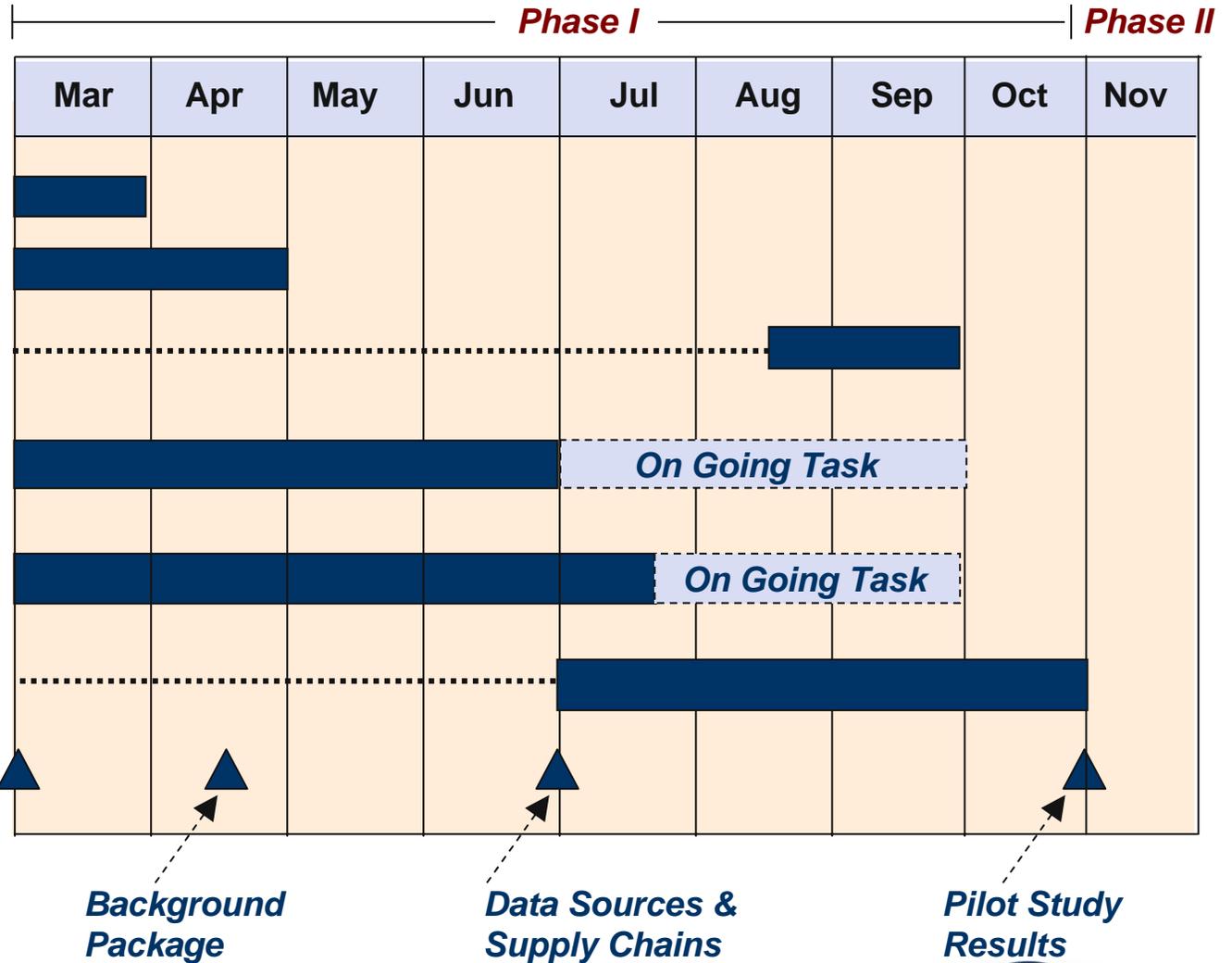
- **Interdependencies relationships and cascading impact analysis tools**

- **Supply chain and economic analysis tools**

* ***Initial focus on consequences of disruption***



Pilot Project Time Line



Pilot Project POCs

- **State of Illinois: Tim Milam**
- **Private Sector: Rich Ryan (Archer Daniels Midland Co.)**
- **DHS/OIP: Enrique Matheu**
- **USACE: Yazmin Seda-Sanabria**
- **USCG: LCDR Mike Dolan**
- **ANL: Jim Peerenboom**

