



# **U.S. Geological Survey**

## **National Geospatial Programs Office**

### ***The National Map***

Dick Vraga, USGS Geospatial Liaison for Wisconsin and Illinois  
NSDI Partnership Office  
Governor's Conference on the Management of the Illinois River System  
October 6, 2005

U.S. Department of the Interior  
U.S. Geological Survey

# Opportunities for Geospatial Information

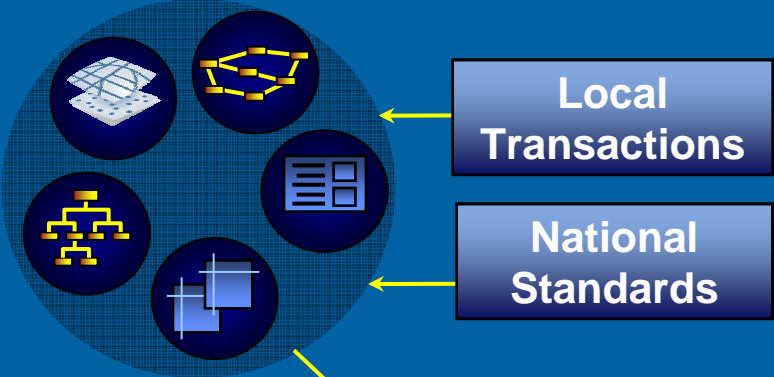
- Rich data holdings in many hands
- Skilled expertise of many entities
- Data continually acquired in many ways
- Great advances in many technologies
- Endless potential for many uses
- Essential partnerships in many communities
- Budget pressures throughout all levels

# National Spatial Data Infrastructure

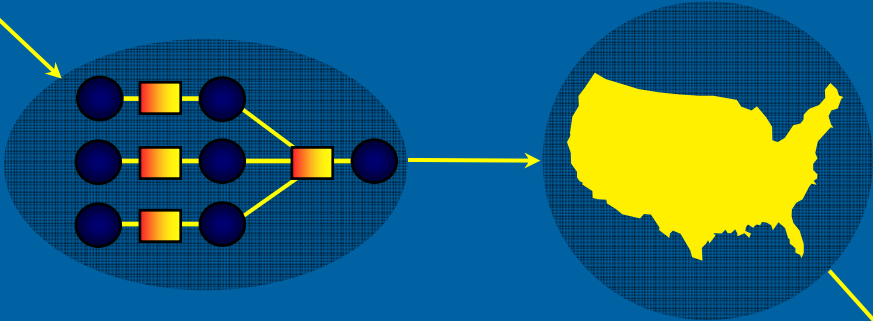
- Executive Order 12906 – Coordinating Geographic Data Acquisition and Access: The National Spatial Data Infrastructure
- NSDI is defined as the technologies, policies, and people necessary to promote sharing of geospatial data throughout all levels of government, the private and non-profit sectors, and the academic community.

# National Spatial Data Infrastructure Vision

## Local Data Sets

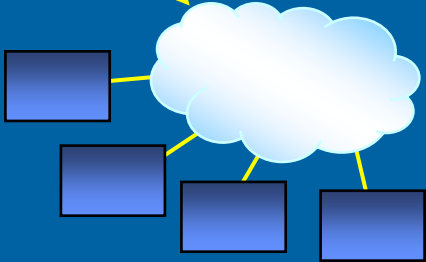


## National Data Sets



- Transformation
- Conversion
- Integration

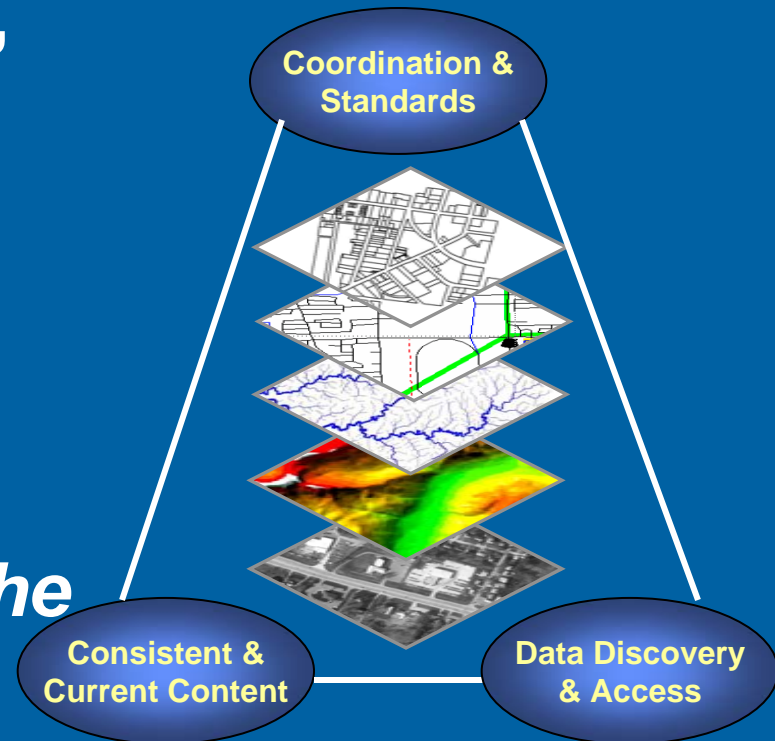
## Distribution



High-Quality Data Compiled from Local Sources

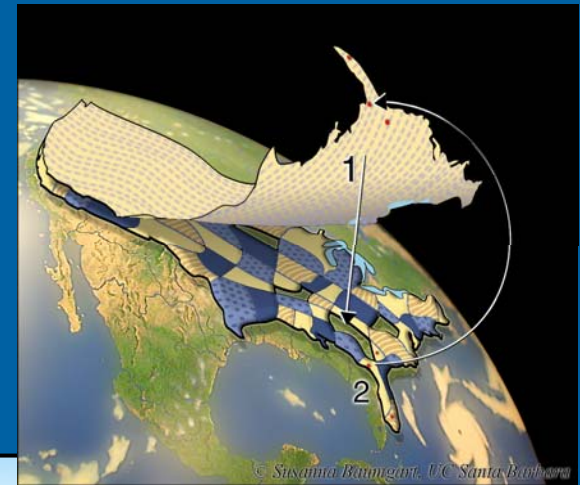
# Connecting the Components

- Coordination, standards, policy – Federal Geographic Data Committee
- Discovery and access – Geospatial One Stop
- Integrated base data – *The National Map*



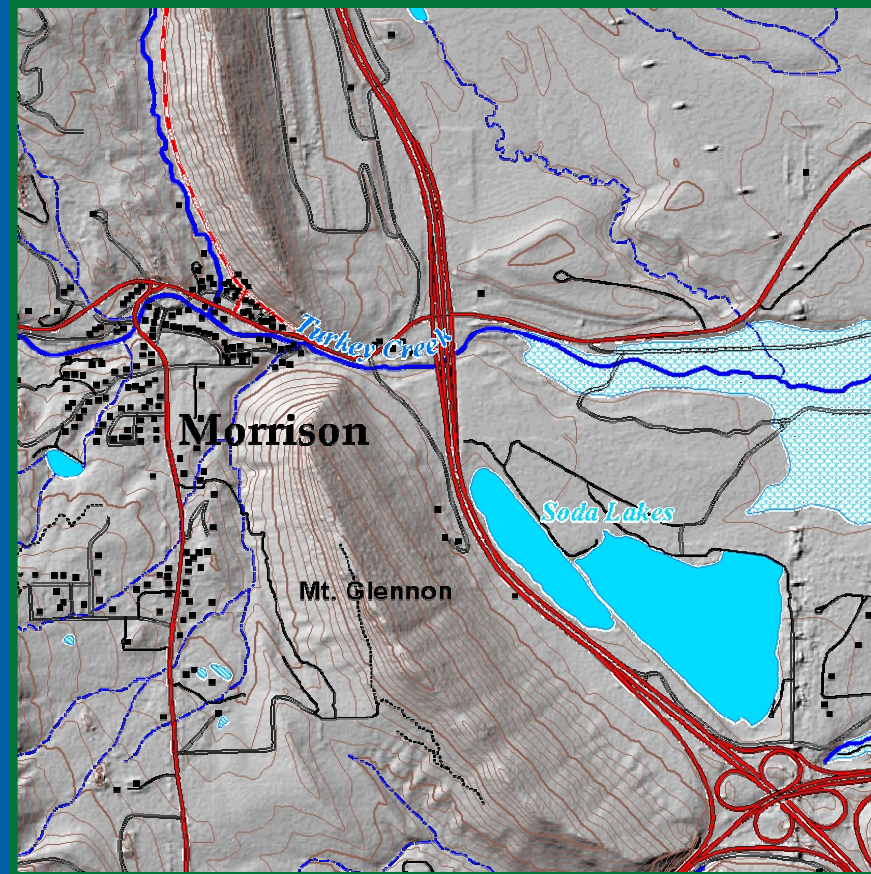
# Vision of *The National Map*

- Seamless, continuously maintained, nationally consistent set of **base geographic data**
- Developed and maintained through **partnerships**
- National **framework** for science, land and resource management, recreation, policy making, and homeland security
- Available over the Internet
- Source for revised topographic maps



# *The National Map: Data Content*

- Orthorectified imagery
- Land cover
- Elevation
- Vector layers:
  - **Transportation**
  - **Hydrography**
  - **Structures**
  - **Boundaries**
- Geographic names



# *The National Map Operations*

- Build initial version from best available data
- Improve throughout decade - shift to maintaining currentness
- Establish partnerships for data maintenance with...
  - **Federal agencies**
  - **State and local governments**
  - **Private industry**
  - **Local trained or certified volunteers**
- Create a networked, distributed collection of databases linked by the Internet
- Obtain feedback from partners and users



USGS Web Map - NED Data Source Index - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Media Refresh Print Mail Wordpad

Address [http://gisdata.usgs.net/website/usgs\\_gn\\_ned\\_dsi/viewer.htm](http://gisdata.usgs.net/website/usgs_gn_ned_dsi/viewer.htm) Go Links

# USGS

## USGS Web Map - NED Data Source Index

National Elevation Dataset

**Move**

**Zoom**

**Select**

**Misc**

Order NED  
NED Docs

Display Layers

Legend

- States-15M
- Resolution
- 1 arc second
- 2 arc second
- 3 arc second
- 1/3 arc second

0 145mi

States-15M is now the Active Layer

Tool selected = Zoom In

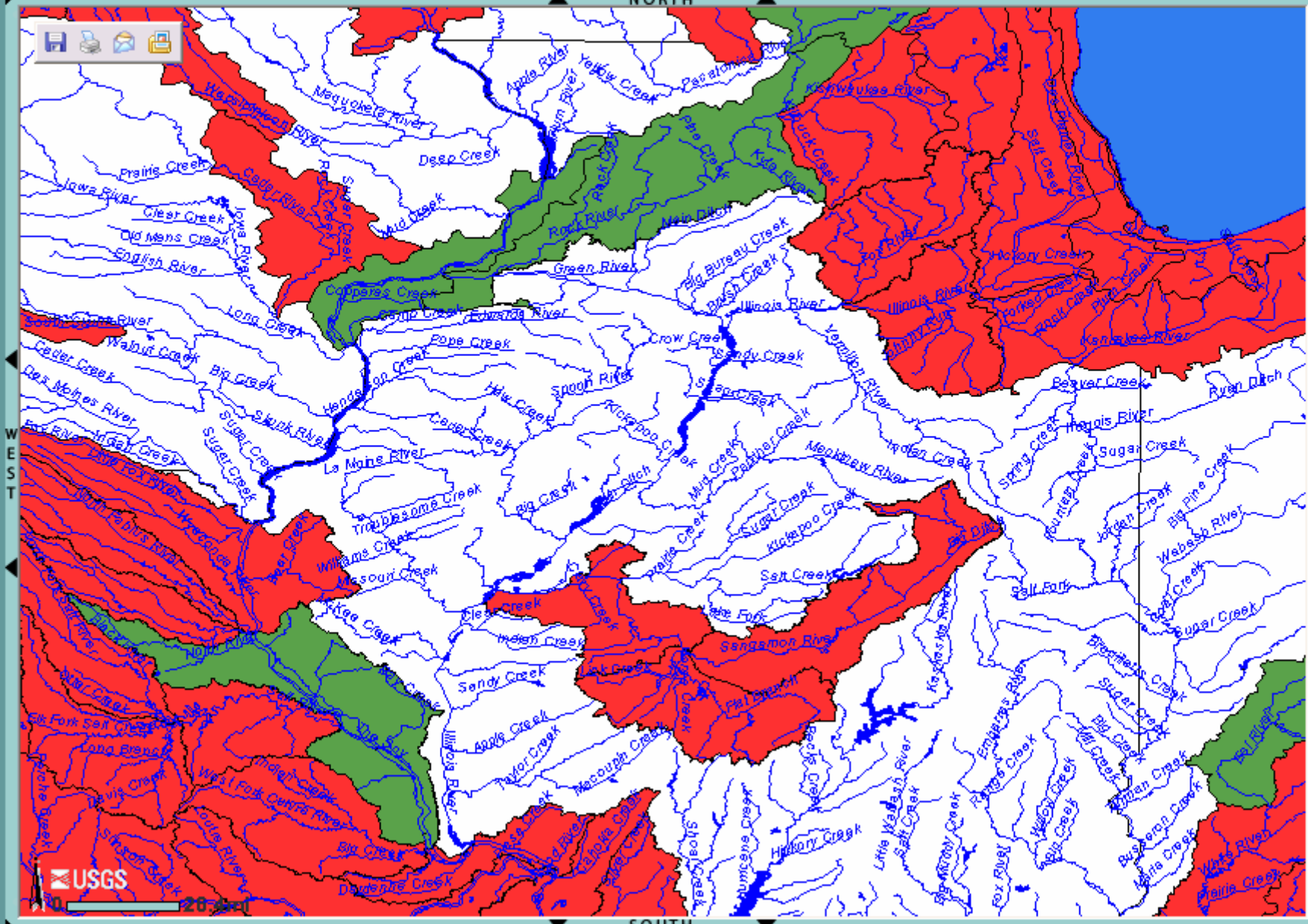
National Elevation Dataset

[U.S. Department of the Interior](#) || [U.S. Geological Survey](#) || [EROS Data Center](#)  
URL: [http://gisdata.usgs.net/website/usgs\\_gn\\_ned\\_dsi/index.htm](http://gisdata.usgs.net/website/usgs_gn_ned_dsi/index.htm) || Maintainer: [webmapping@usgs.gov](mailto:webmapping@usgs.gov) || Last Modified: Thu 02 Aug 2001

Internet

start Palm... IGS... Micr... Rich... 3 I... WinZ... nVie... 12:25 PM

NORTH



Layers

ADMIN: BOUND: State and Province (USGS)

State and Boundari

ELEV.

GEOGRAP

GEO

HYDRO

NHD SubBasin Hic

NHDStatu

- Null
- Planned
- In-Work
- Available
- Avail-Rev
- Avail-Rev

National Atlas Stre

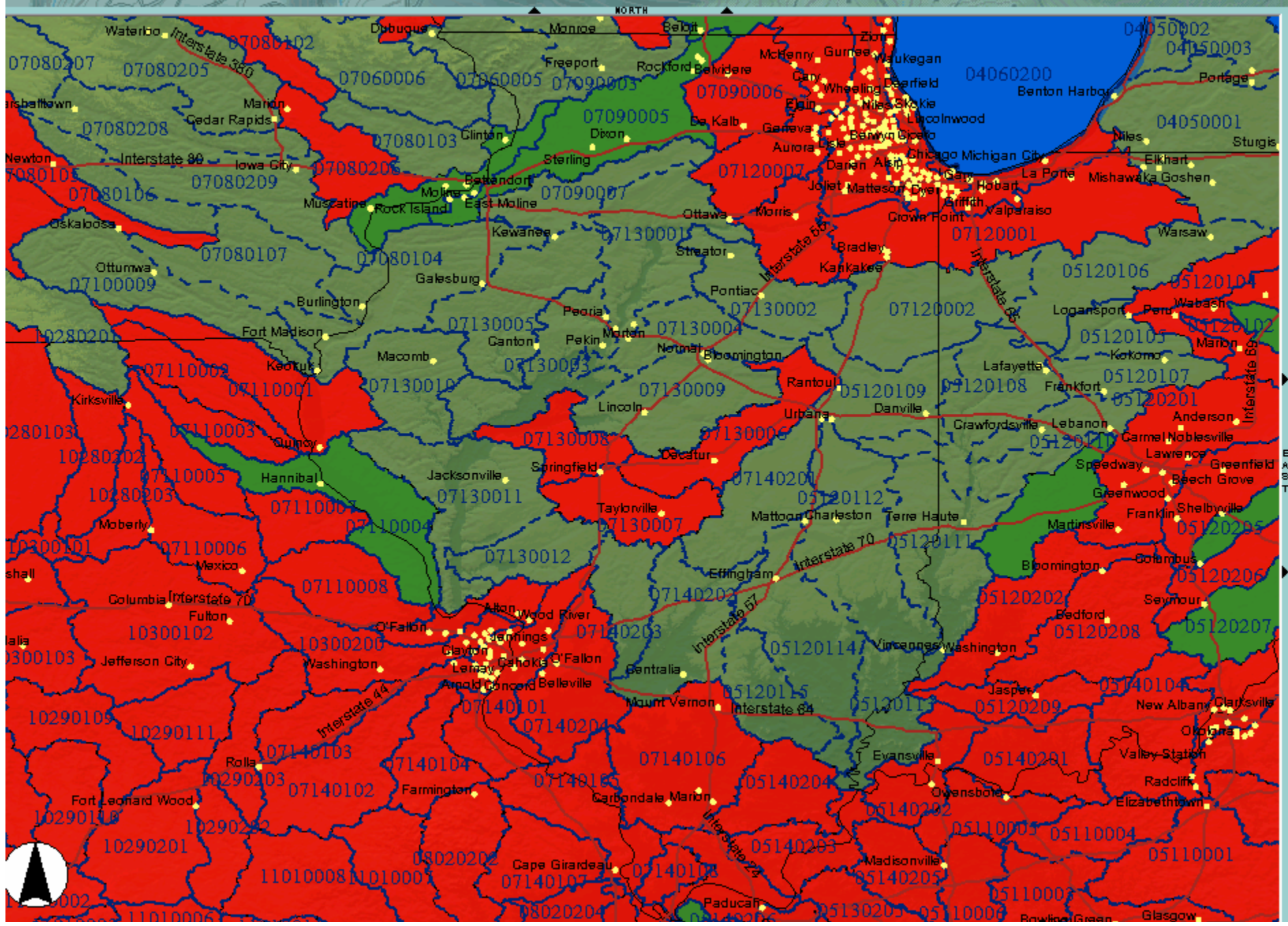
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National Atlas Stre

Refre

SOUTH

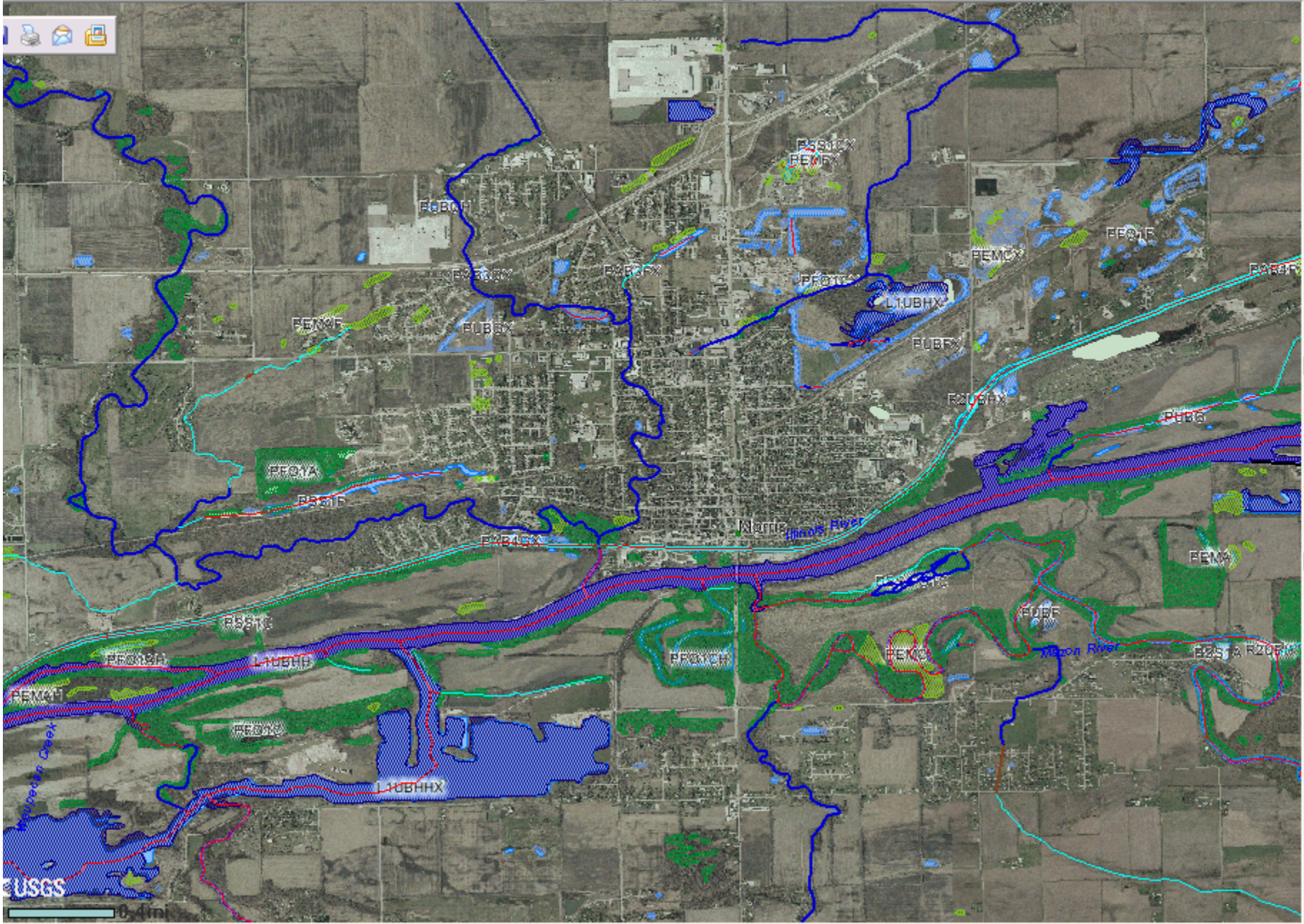
ASE



NH



NORTH



Map navigation and layer controls:

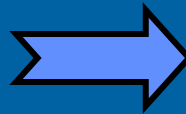
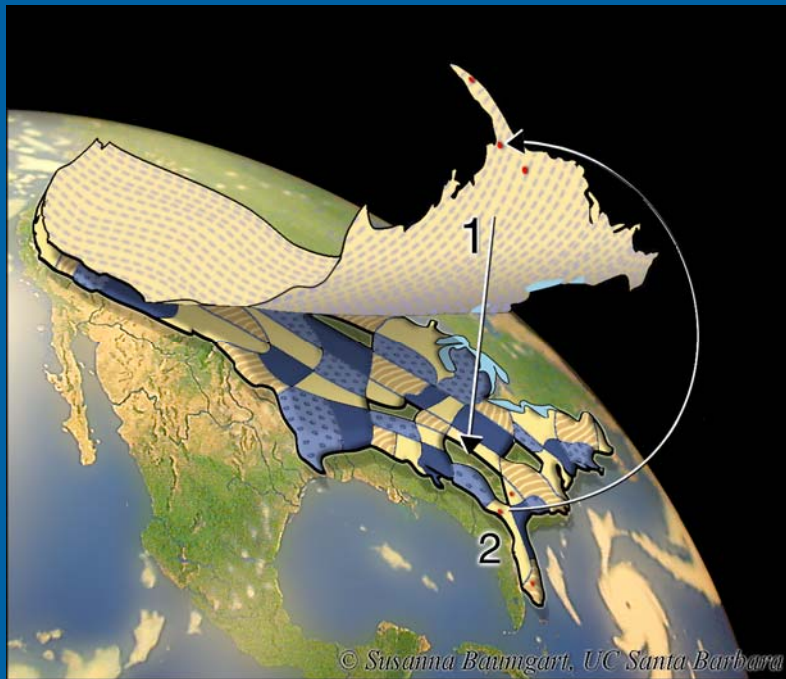
- Map navigation icons: Home, Back, Forward, Print
- Layers panel:
  - State Boundary (white line)
  - Capitals (red star, yellow star, green dot, black dot)
  - NHD Hydrography (Legend table below)

NHD Hydrography	Symbol/Color
A	Blue square
C	Cyan square
H	Black square
Ir	Red square
R	Red square
S	Blue square
S	Orange square
S	Orange square

Map navigation: Home, Back, Forward, Print, Scale bar (0.4 mi), USGS logo

# A Tapestry of Base Content

- Ensure a Tapestry of Base Content



# *The National Map in Illinois – Digital Orthoimagery*

Spring 2005 State-wide Leaf-off Orthoimagery

Federal, State, Regional & County Partners

16 Funding Partners



# *The National Map in Illinois – Digital Orthoimagery*

## Federal Partners

U.S. Geological Survey

Natural Resources Conservation Service

Federal Emergency Management Agency

National Geospatial Intelligence Agency

# *The National Map in Illinois – Digital Orthoimagery*

## State Partners

Illinois Department of Revenue

Illinois Department of Transportation

Illinois Emergency Management Agency

Illinois Environmental Protection Agency

Illinois Historical Preservation Society





# *The National Map in Illinois – Digital Orthoimagery*

## Regional and County Partners

Northeastern Illinois Planning Commission

Chicago Area Transportation Study

**Counties of:** Cook, DuPage, Kane, Lake, McHenry

# *The National Map in Illinois – ‘State-Wide’ Orthoimagery*

NAPP-based Specifications

Black and White, Quarter-Quad tiles

.5-meter resolution UTM

1.5-foot resolution State Plane

NMAS for 1:12,000-scale

# *The National Map in Illinois – ‘State-Wide’ Orthoimagery*

Delivery

Winter 2005 - Summer 2006

Illinois Clearinghouse

*The National Map*, Geospatial One-Stop

# *1-meter Orthoimagery*



# *.5 - meter Orthoimagery*



# *The National Map in Illinois – ‘Chicago Urban Area’ Orthoimagery*

Homeland Security Specifications

1-foot resolution, Natural Color

1500 x 1500 meter tiles

UTM and State Plane delivery

Horizontal Accuracy – 3 meters RMSE



# *The National Map in Illinois – 'Chicago Urban Area' Orthoimagery*

Delivery

July 2005 - February 2006

Illinois Clearinghouse

*The National Map, Geospatial One-Stop*





# *USGS in Illinois – National Geospatial Programs Office*

## Future Activities

State Coordination

State Plans

NHD

Height Modernization

# *USGS – National Geospatial Programs Office*

NSDI Partnership Office for Wisconsin and Illinois

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