
PRECAP Rivers Navigation Breakout Session

Map Book



Purpose of Map Book

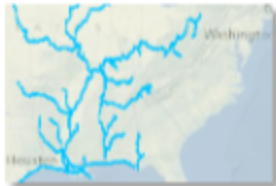
The purpose of this Map Book is to assist the PreCAP Rivers Breakout Session in determining Essential Elements of Information (EEI) and to show potential strategies in mapping the EEIs into a GIS system platform.


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Map 1: Navigable Inland Waterways

USACE Navigable Inland Waterways



 Layer Package
Owner: [Federal_User_Community](#)
Date modified: 12/13/2011
☆☆☆☆☆ 0 Ratings



| Description | Properties | Comments (0) |
|---|------------|--------------|
| <p>This dataset contains physical information on navigable inland waterways and the Gulf Intracoastal Waterway. The data consists of 10,115 sequential mile positions of navigable sites and distances in miles. The data was collected from different sources. 60% of the data was extracted from IENC and 20% USGS 1:24000 topographic quadrangle map sheets which have 1 meter accuracy. 5% of the data was extracted from NOAA nautical charts which have roughly the same accuracy depending on the scale. The remainder of the data was interpolated onto the USGS quadrangle map sheets using the USACE district chart books. The interpolated miles have accuracy of approximately 100 meters. This data was downloaded from http://www.ndc.iwr.usace.army.mil/data/datamile.htm.</p> | | |












Map 2: Inland Ports





Source: USACE Institute for Water Resources

Map 3 : Port Area Waterfront Facilities

USACE Port and Waterway Facilities



 Layer Package
 

Owner: [Federal_User_Community](#)
 Date modified: 10/13/2011
 ☆☆☆☆☆ 0 Ratings

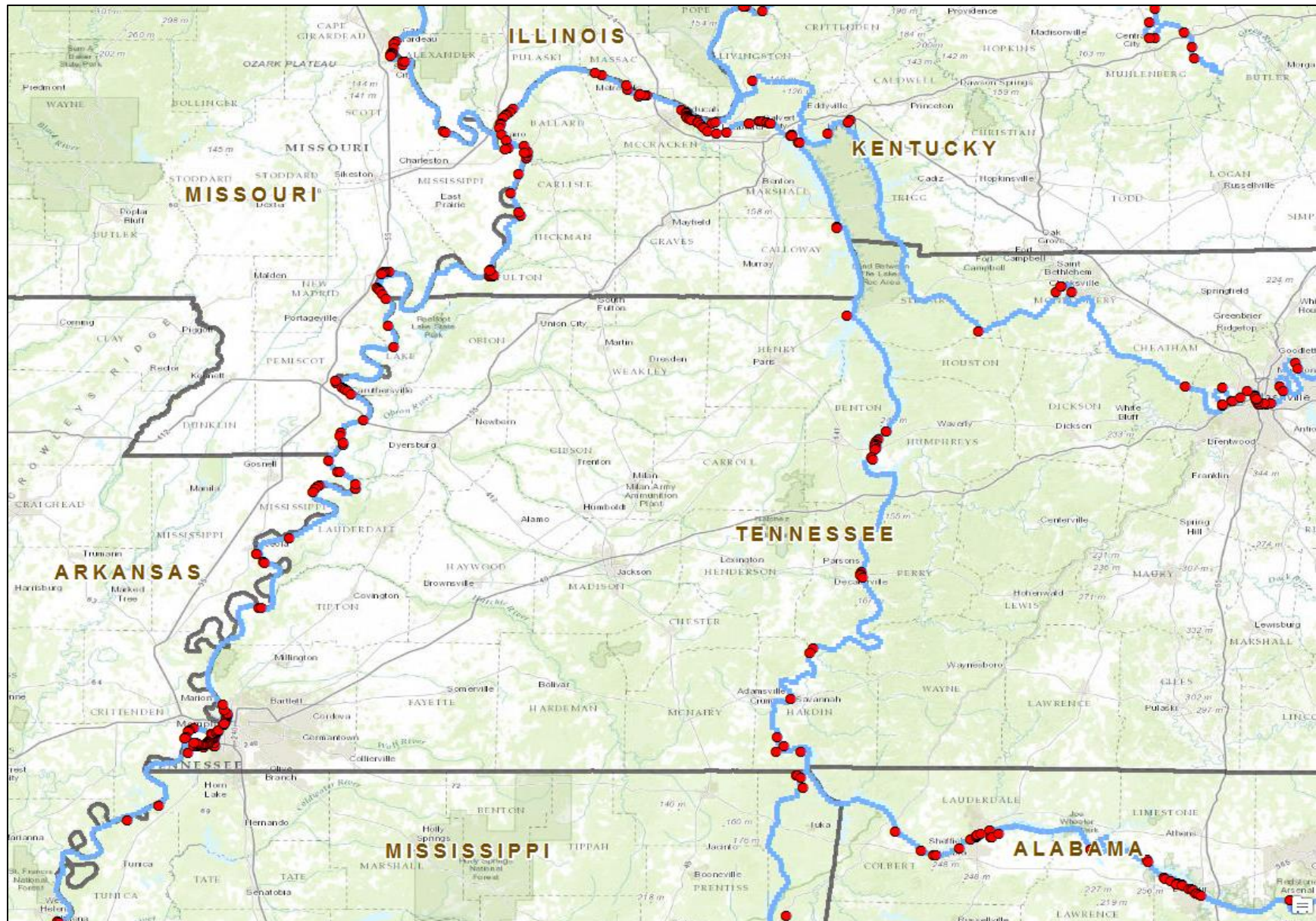
Description
 Properties
 Comments (0)

This dataset contains physical information on commercial facilities at the principal U.S. Coastal, Great Lakes and Inland Ports. The data consists of listings of port area's waterfront facilities, including information on berthing, cranes, transit sheds, grain elevators, marine repair plants, fleeting areas, and docking and storage facilities. Collection of data is performed on a rotational basis to ensure on-site accuracy at each facility. The primary data was collected by facility operators, port organizations, transportation companies and on-site investigations. This data was downloaded from <http://www.ndc.iwr.usace.army.mil/data/datapwd.htm>.

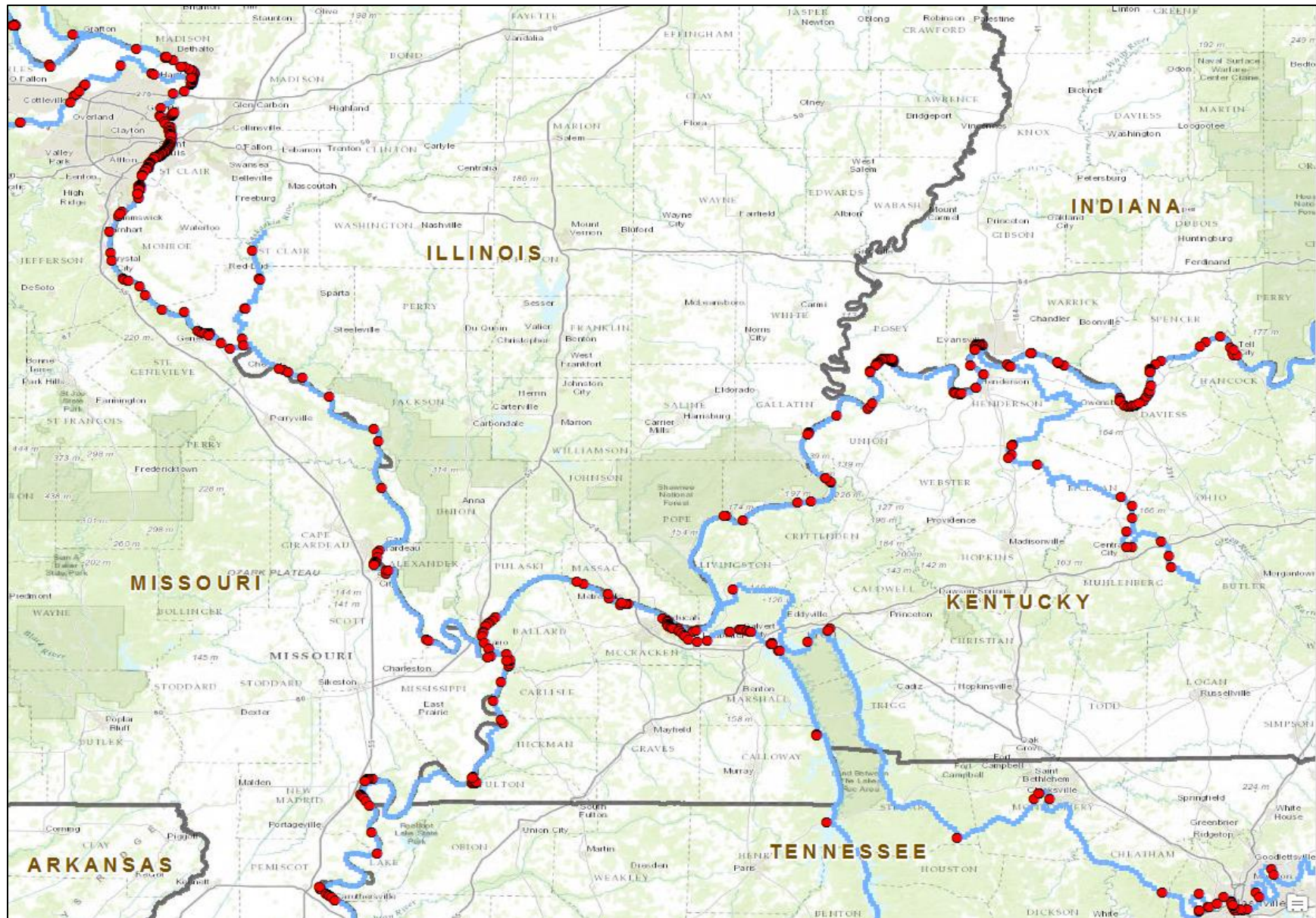


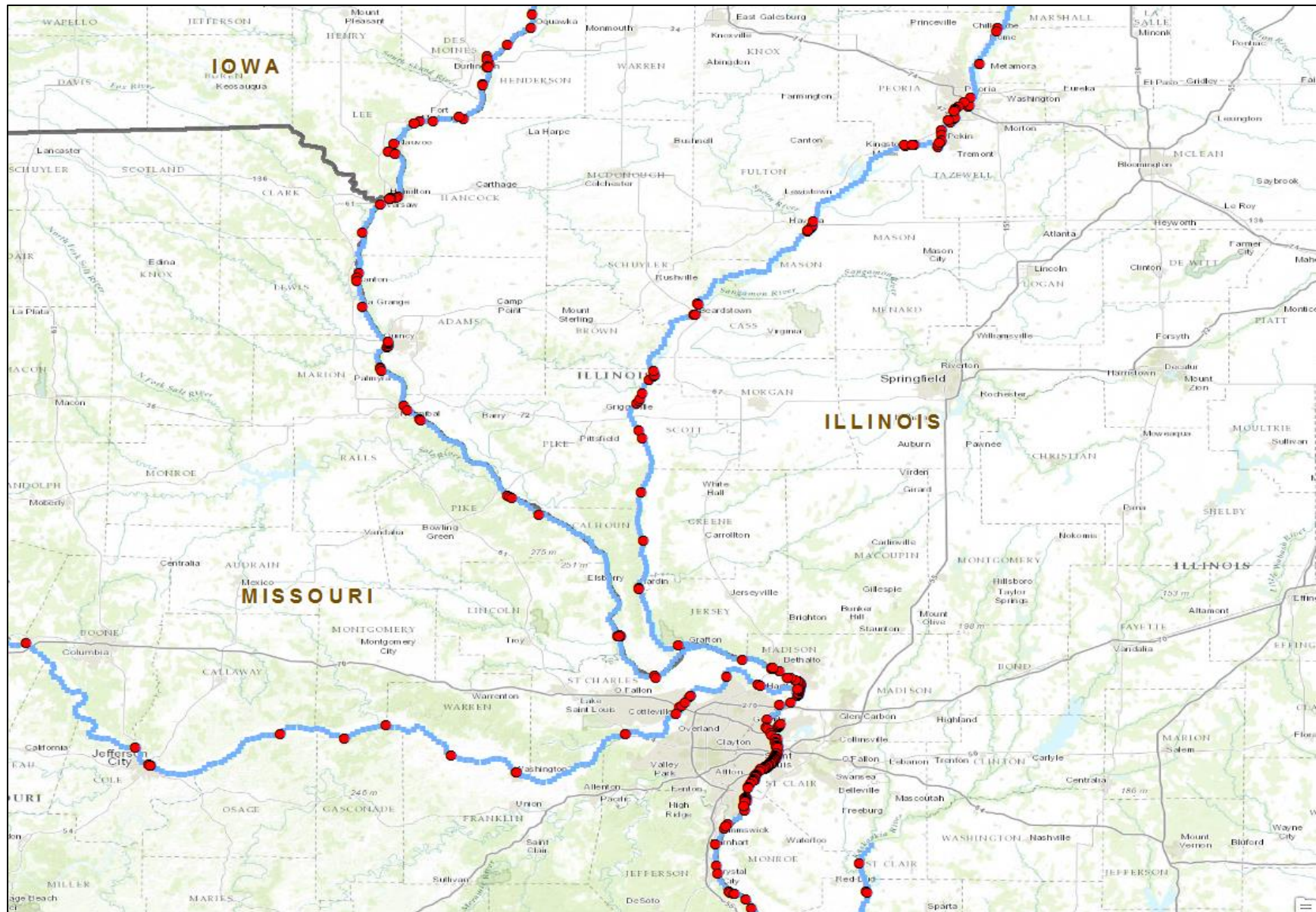
Map 3: Port Area Waterfront Facilities



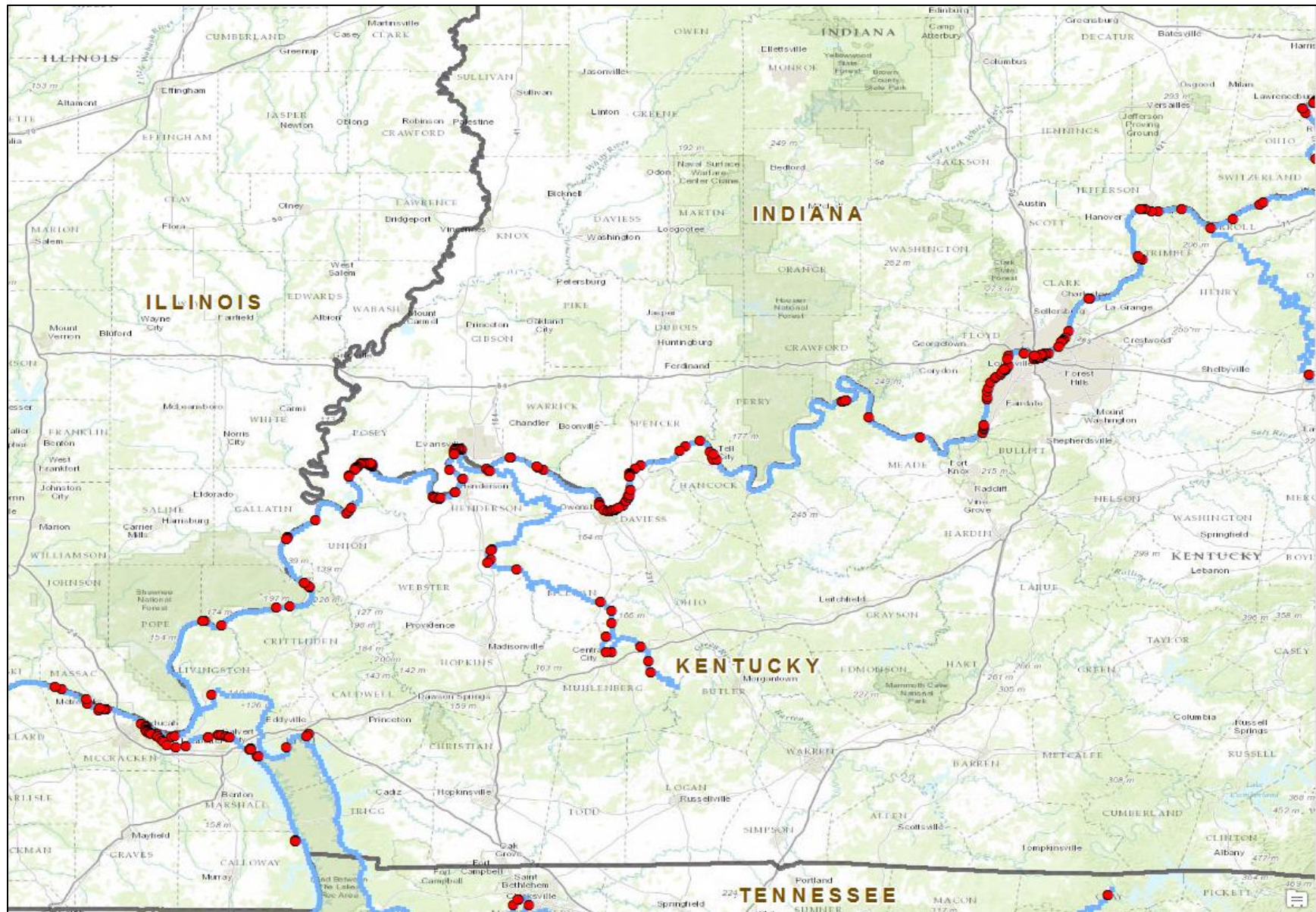


Map 3: Port Area Waterfront Facilities





Map 3: Port Area Waterfront Facilities



Example of Info Provided Under Each Facility

Identify

Identify from:
<Top-most layer>

Port and Waterway Facilities

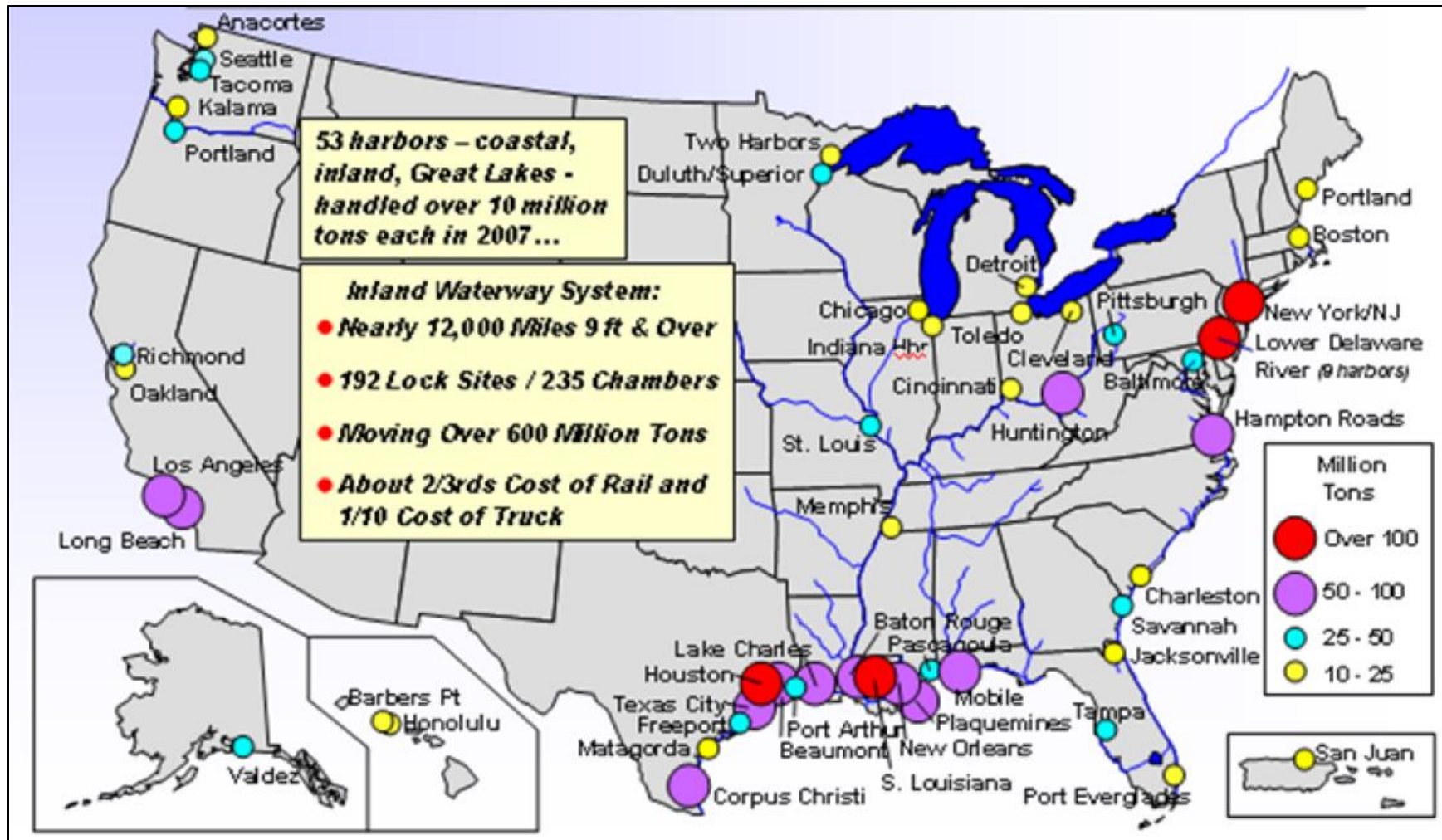
- Global Materials Services, Helena Port Terminal Dock No.ã2.
- Global Materials Services, Helena Port Terminal Dock No.ã1.
- Global Materials Services, Helena Port Terminal Dock No.ã3.
- Bunge Corp., Helena Elevator Dock.

Location:
-90.583503 34.518384 Decimal Degrees

| Field | Value |
|------------|--|
| ADDRESS | 101 Arkansas Street. |
| BANK | Right |
| COUNTY | Phillips |
| MILE | 663.1 |
| NAME | Global Materials Services, Helena Port Terminal Dock No.ã2. |
| OBJECTID_1 | 8807 |
| OWNER | Global Materials Services, LLC. |
| PORT_NAME | Memphis, TN; Helena, AR; and Lower Miss River (Miles 620-954 AHP) |
| PORTSERIES | 71 |
| PURPOSE | Shipment of dry-bulk commodities and grain. |
| RWY_CONN | One carfloor-level track along rear of seawall serves transit sheds and undertrack pit, and two surface tracks serve facility at Yazoo and Arkansas Streets; connect with Arkansas Midland Railroad. |
| STATE | AR |
| TOWN | Helena |
| WATERWAY | Mississippi River |
| | |
| | |
| | |

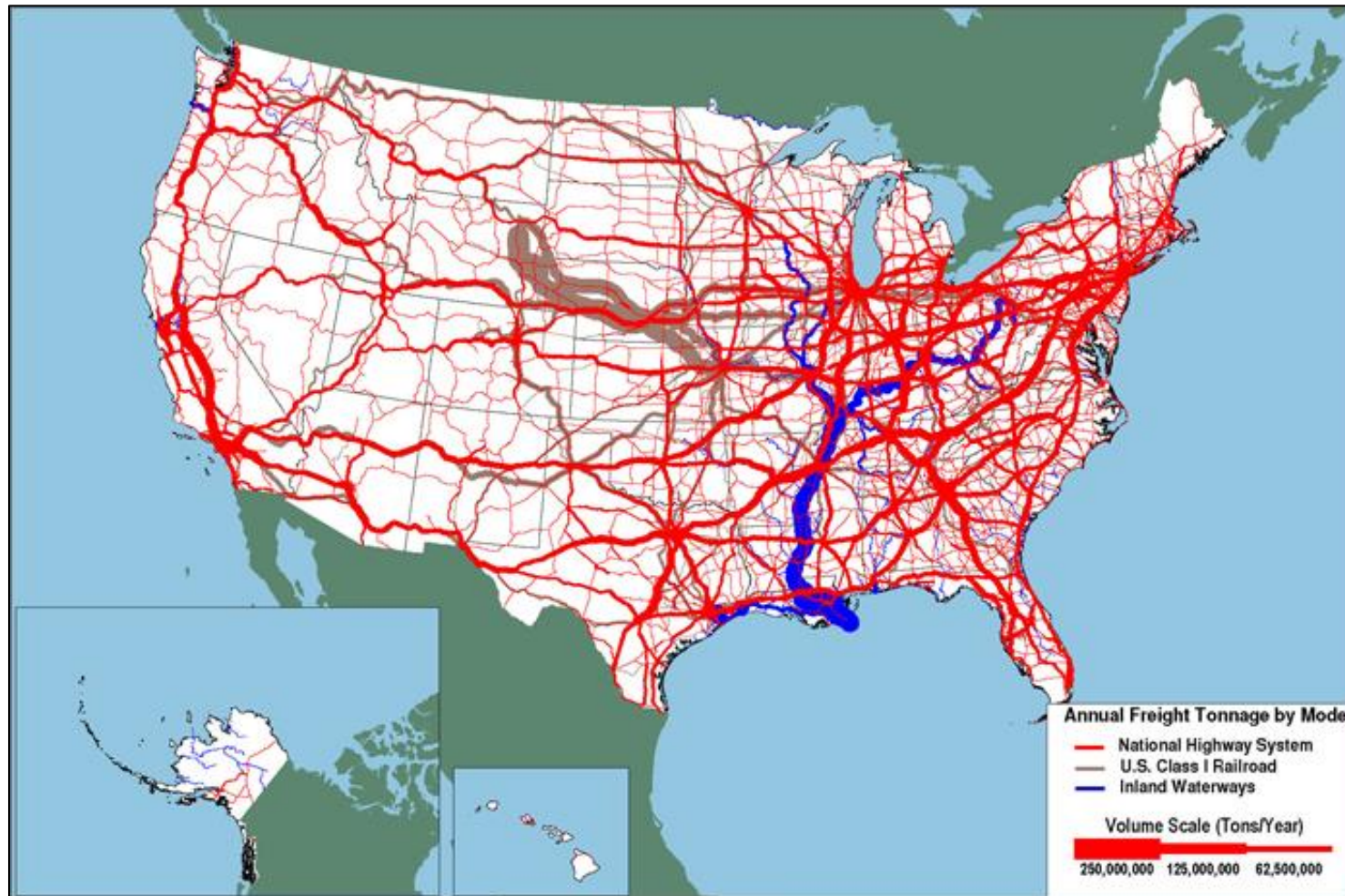
Identified 4 features

Map 4: Principle Ports by Cargo Tons

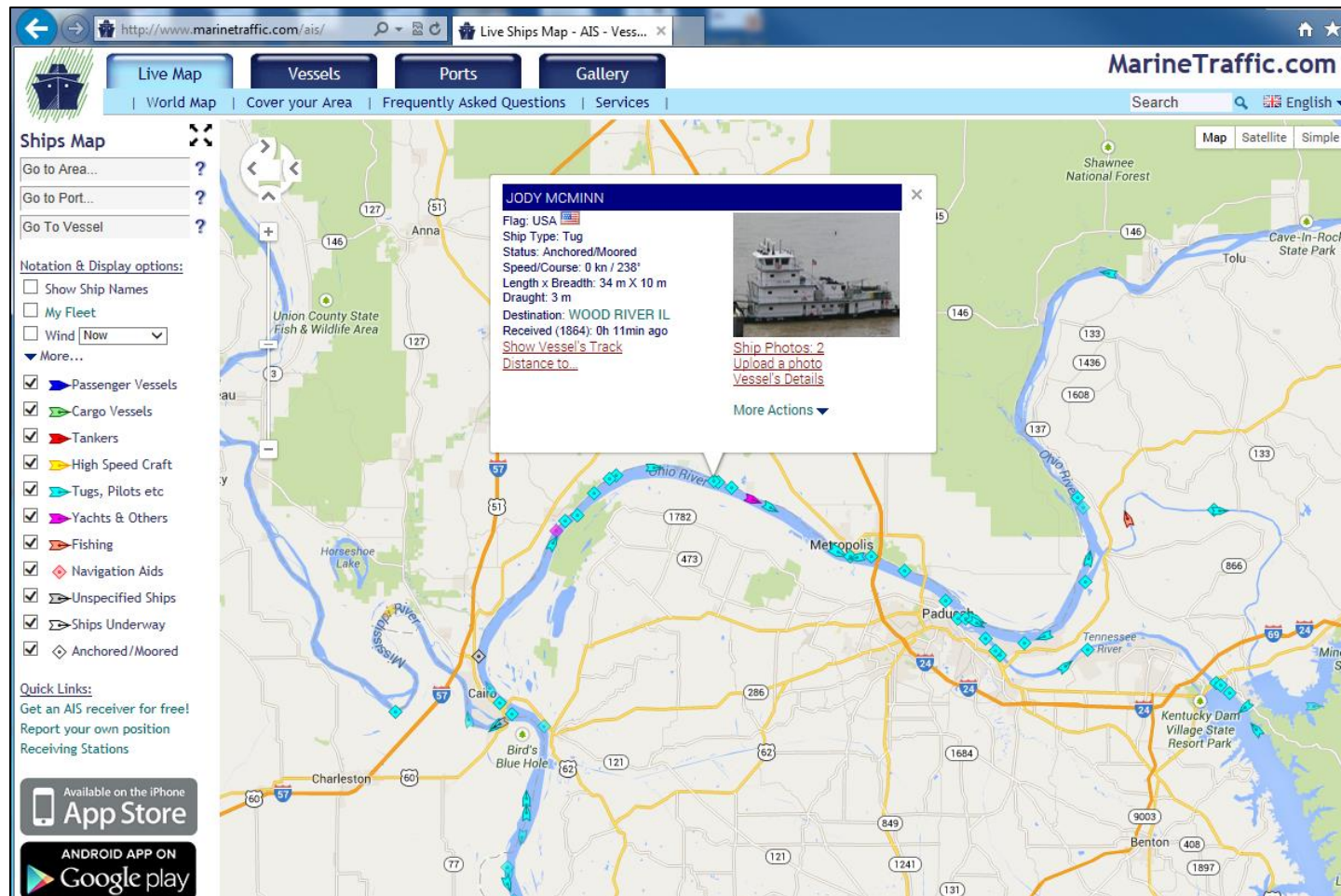


Source: Army Corps of Engineers Institute for Water Resources (2007)

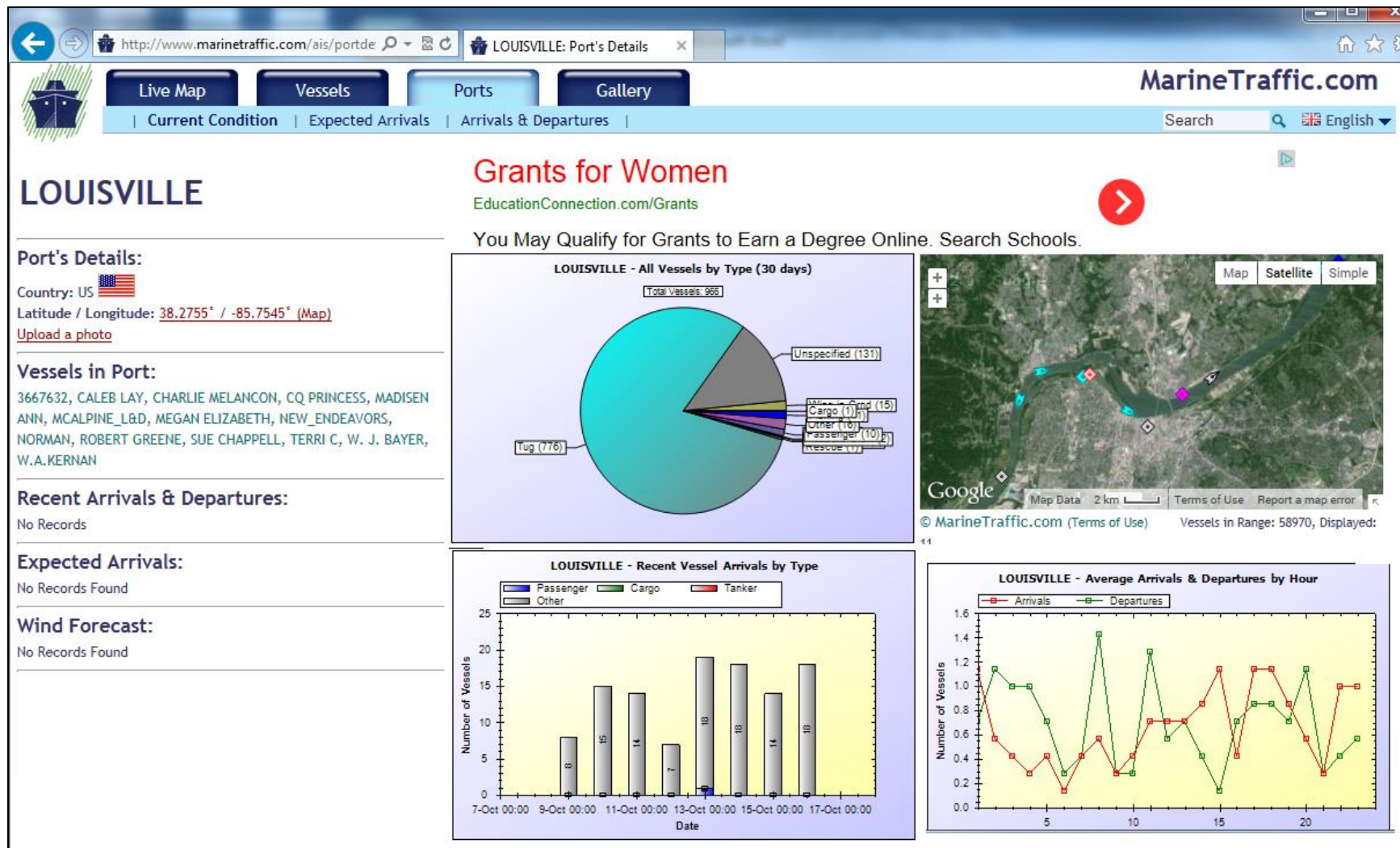
Map 5 : Annual Freight Tonnage Volume



Map 6: Marine Traffic





As from December 2004, the International Maritime Organization (IMO) requires all vessels over 299GT to carry an AIS (Automatic Identification System) transponder on board, which transmits their position, speed and course, among some other static information, such as vessel's name, dimensions and voyage details.



Map 7 : Marine Facility & Vessel Incidents (2007 example)

NDC Marine Facility and Vessel Events



 Layer Package
Owner: [Federal_User_Community](#)
Date modified: 12/19/2011
★ ★ ★ ★ ☆ 1 Rating

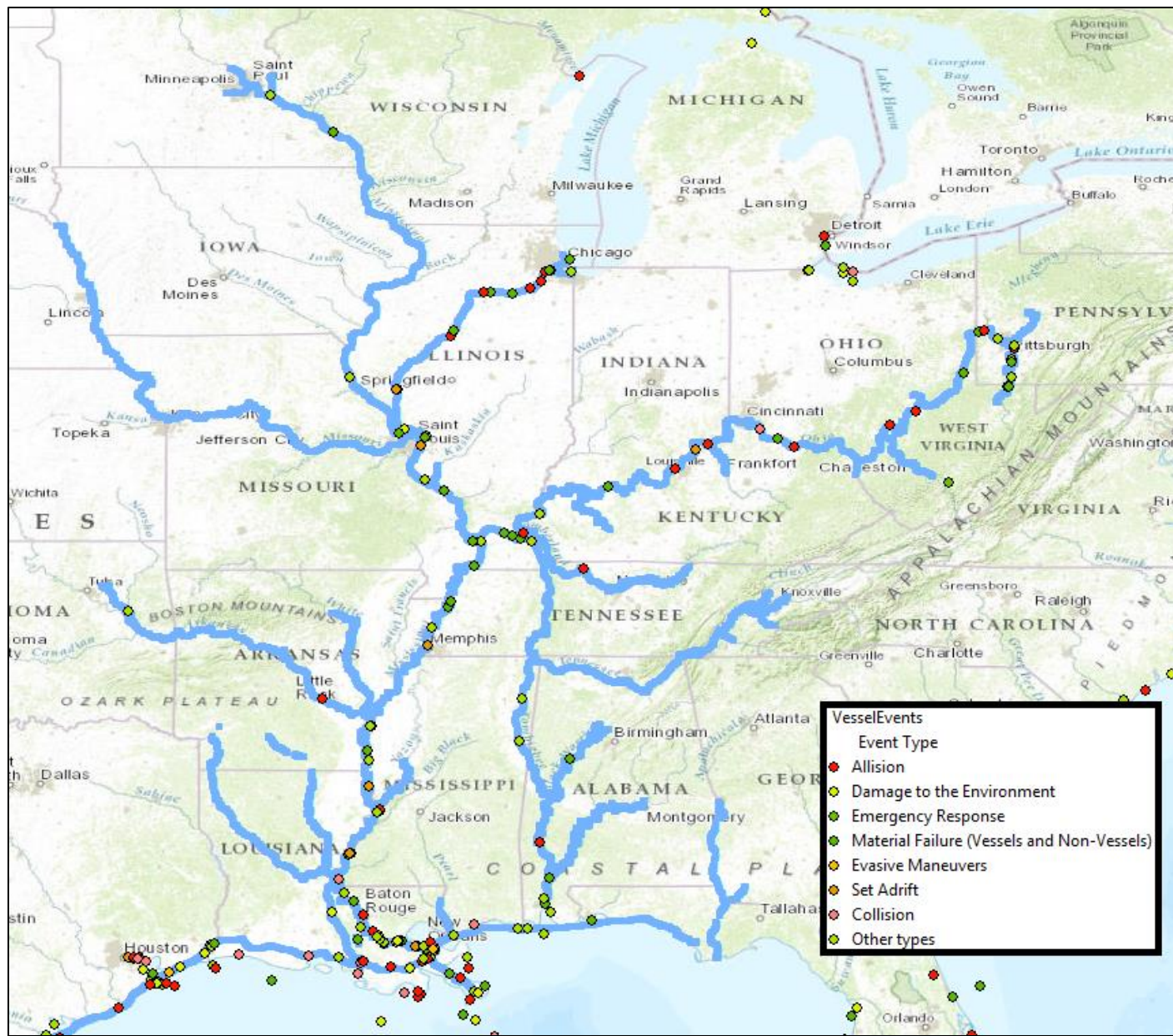
Description

Properties

Comments (0)

This is a dataset for events and incidents that happen at the marine related to marine facilities and vessels within the U.S. Coastal, Inland Ports and Waterways. These marine events are from completed cases from known vessels or facilities. Cases which do not meet reporting criteria or are not marine safety related are not included in these listings. The dataset was extracted from Marine Safety Information and Law Enforcement System (MSILE) database. The database is populated by Coast Guard Investigators at each marine safety unit. This data was for mid December 2006 to December 31, 2007. Such types of marine events include allision, collision, damage to the environment, material failure, emergency responses, blowout, and evasive maneuvers. This dataset was downloaded from <http://www.iwr.usace.army.mil/ndc/db/uscg/dbf/CG07/>.

Map 7: Marine Facility & Vessel Incidents (2007 example)

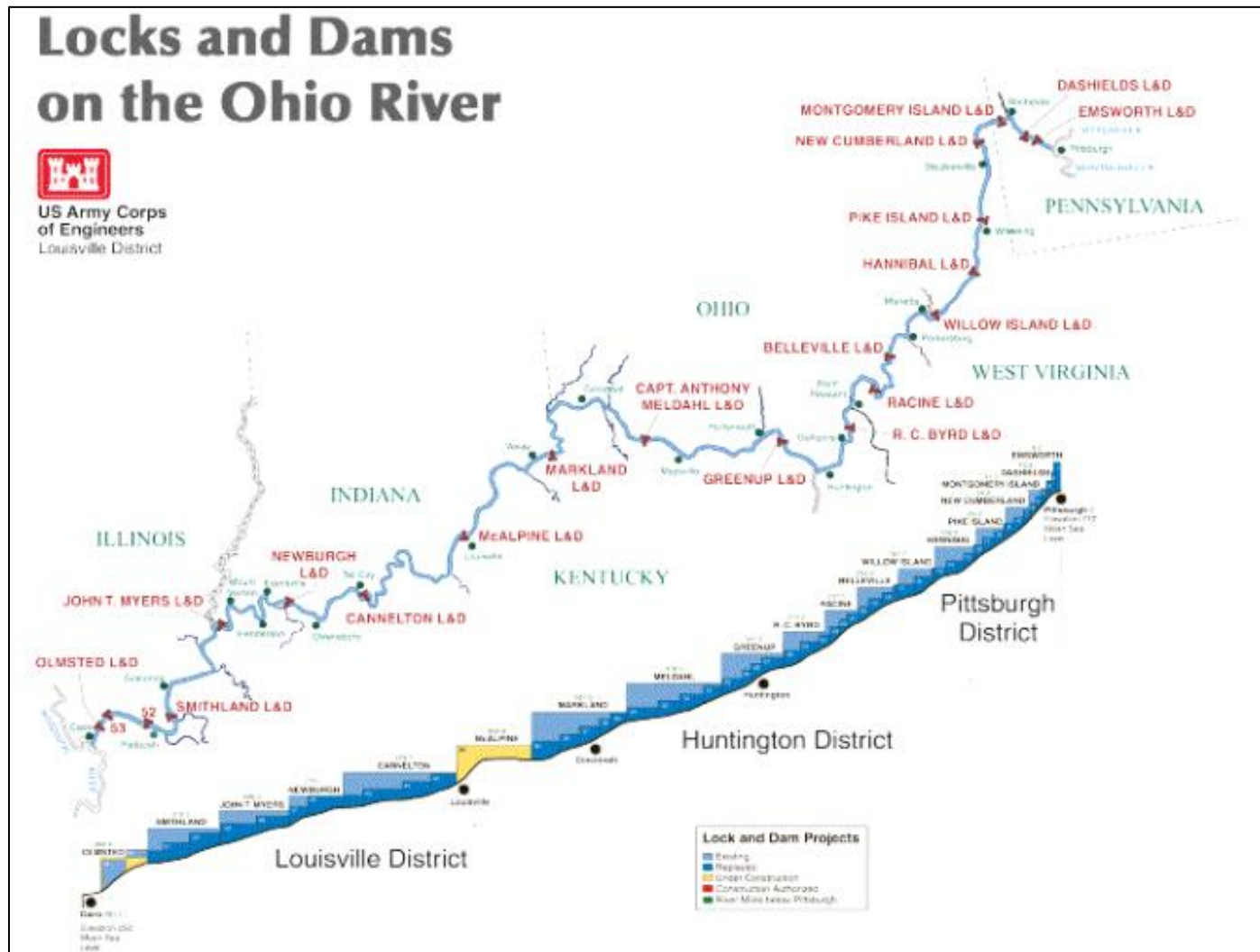


Map 7: Marine Facility & Vessel Incidents (2007 example)



Map 8: River Locks





Map 9 : Major Dams

Major Dams of the United States, Puerto



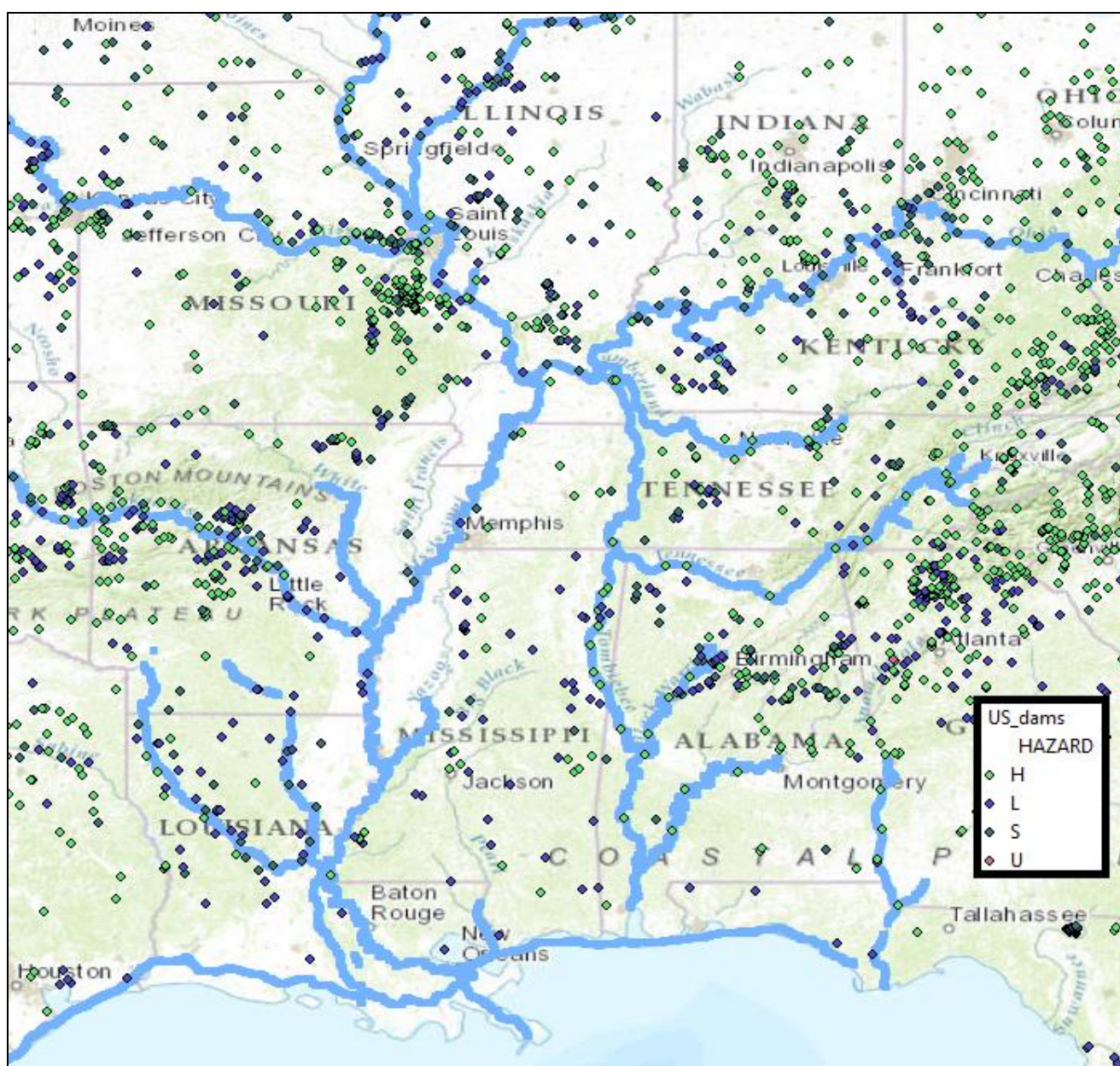
 Layer Package
Owner: [consbio](#)
Date modified: 9/9/2010
☆☆☆☆☆ 0 Ratings

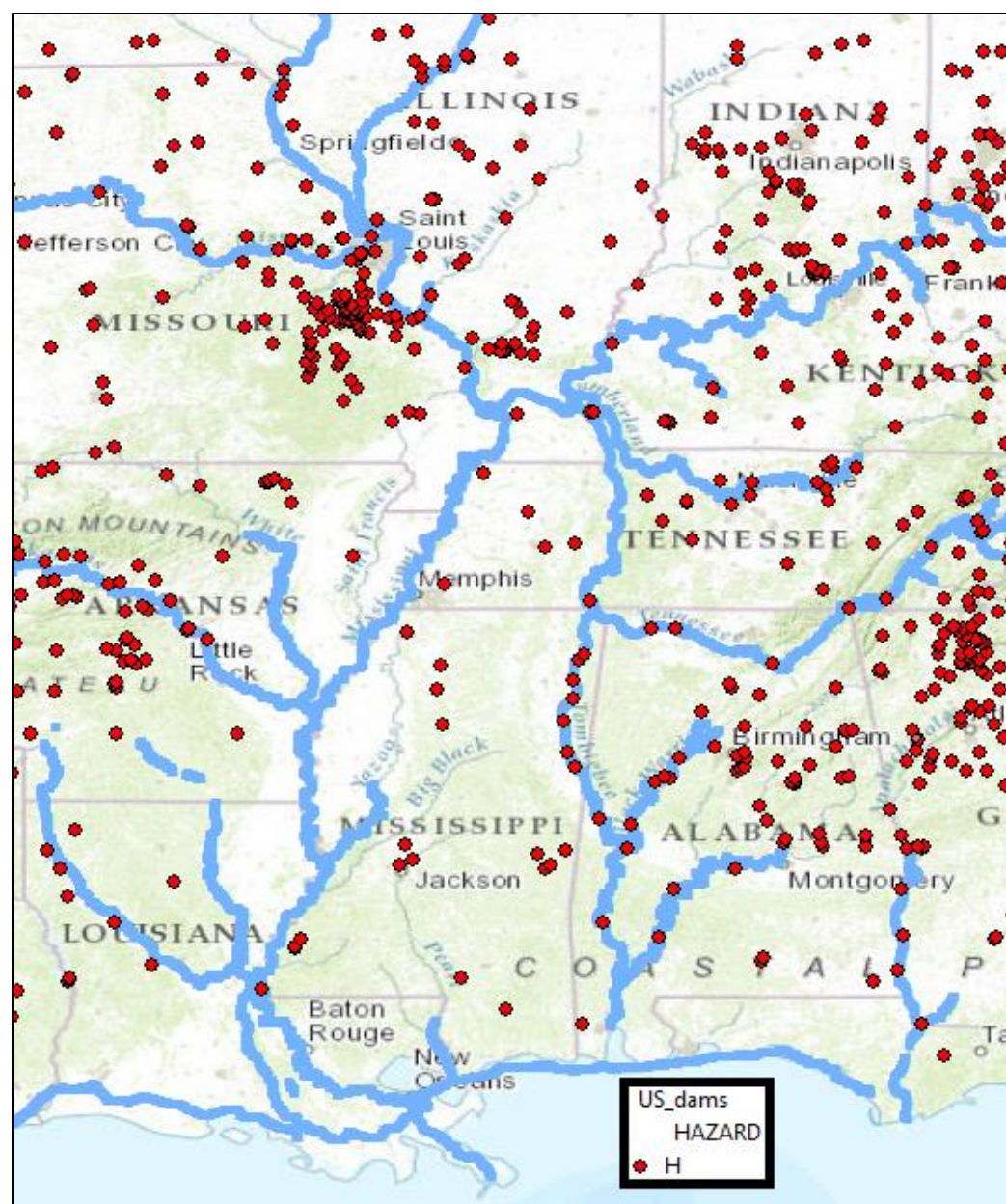


DescriptionPropertiesComments (0)

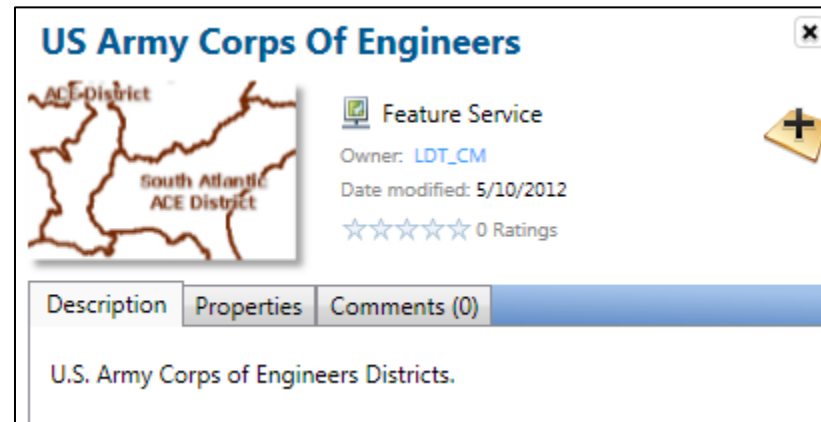
This map layer portrays major dams of the United States, including Puerto Rico and the U.S. Virgin Islands. The map layer was created by extracting dams 50 feet or more in height, or with a normal storage capacity of 5,000 acre-feet or more, or with a maximum storage capacity of 25,000 acre-feet or more, from the 79,777 dams in the U.S. Army Corps of Engineers National Inventory of Dams. This is a replacement for the April 1994 map layer.

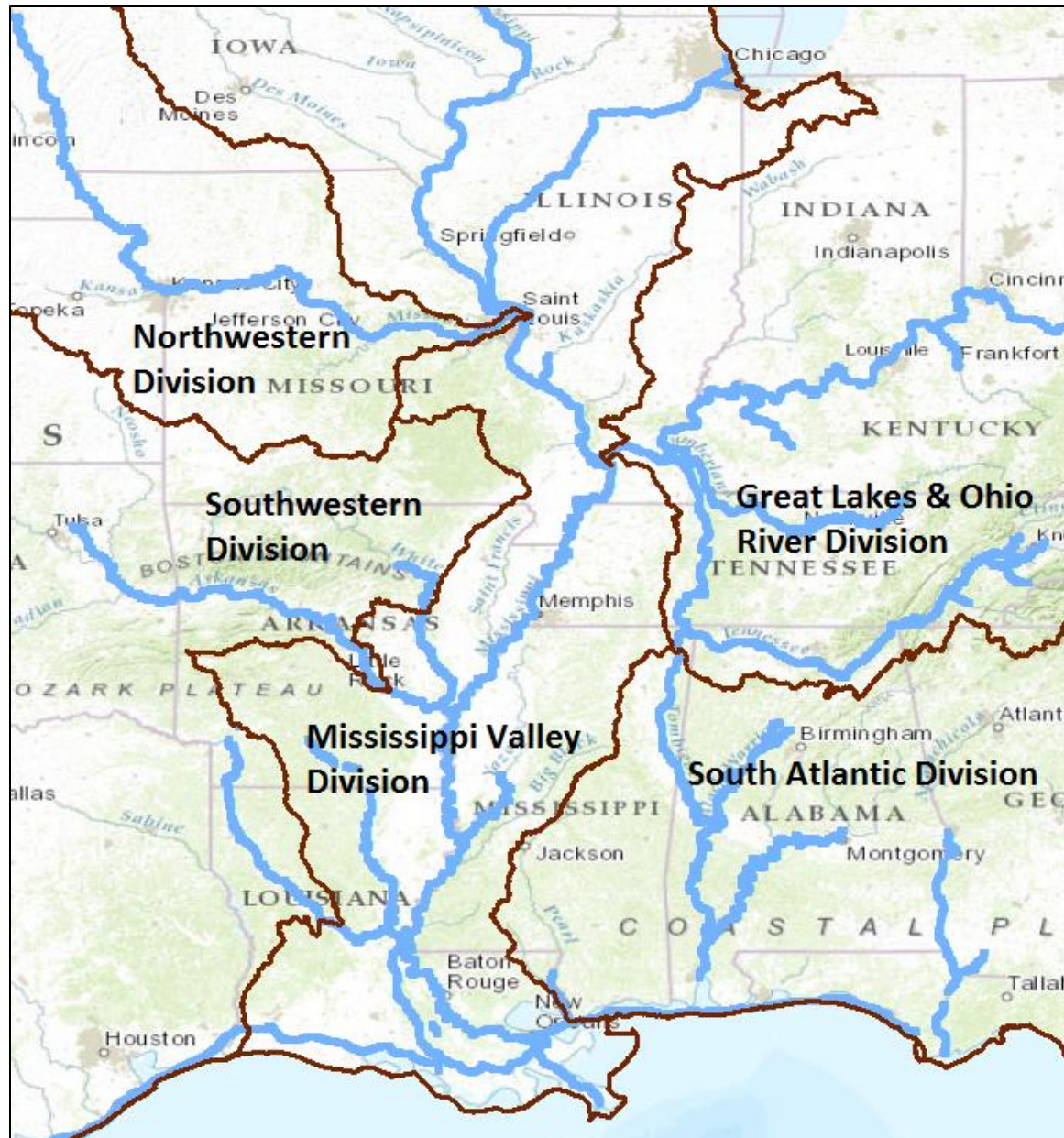
This layer package was loaded using [Data Basin](#).
[Click here to go to the detail page for this layer package in Data Basin](#), where you can find out more information, such as full metadata, or use it to create a live web map.

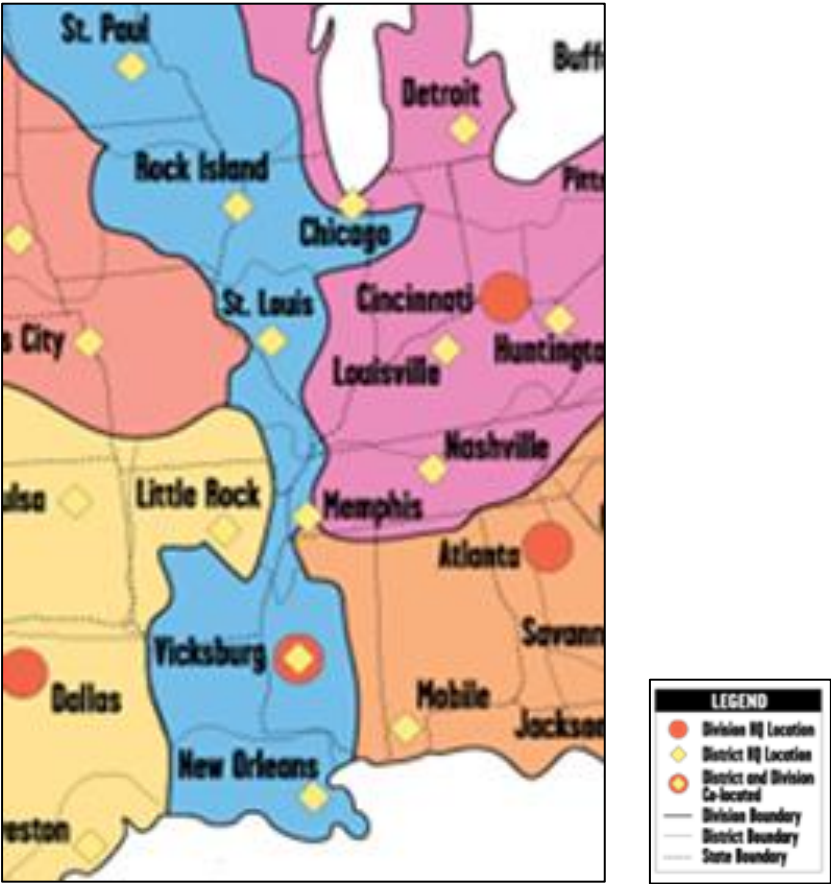




Map 10 : Army Corps Divisions & Districts

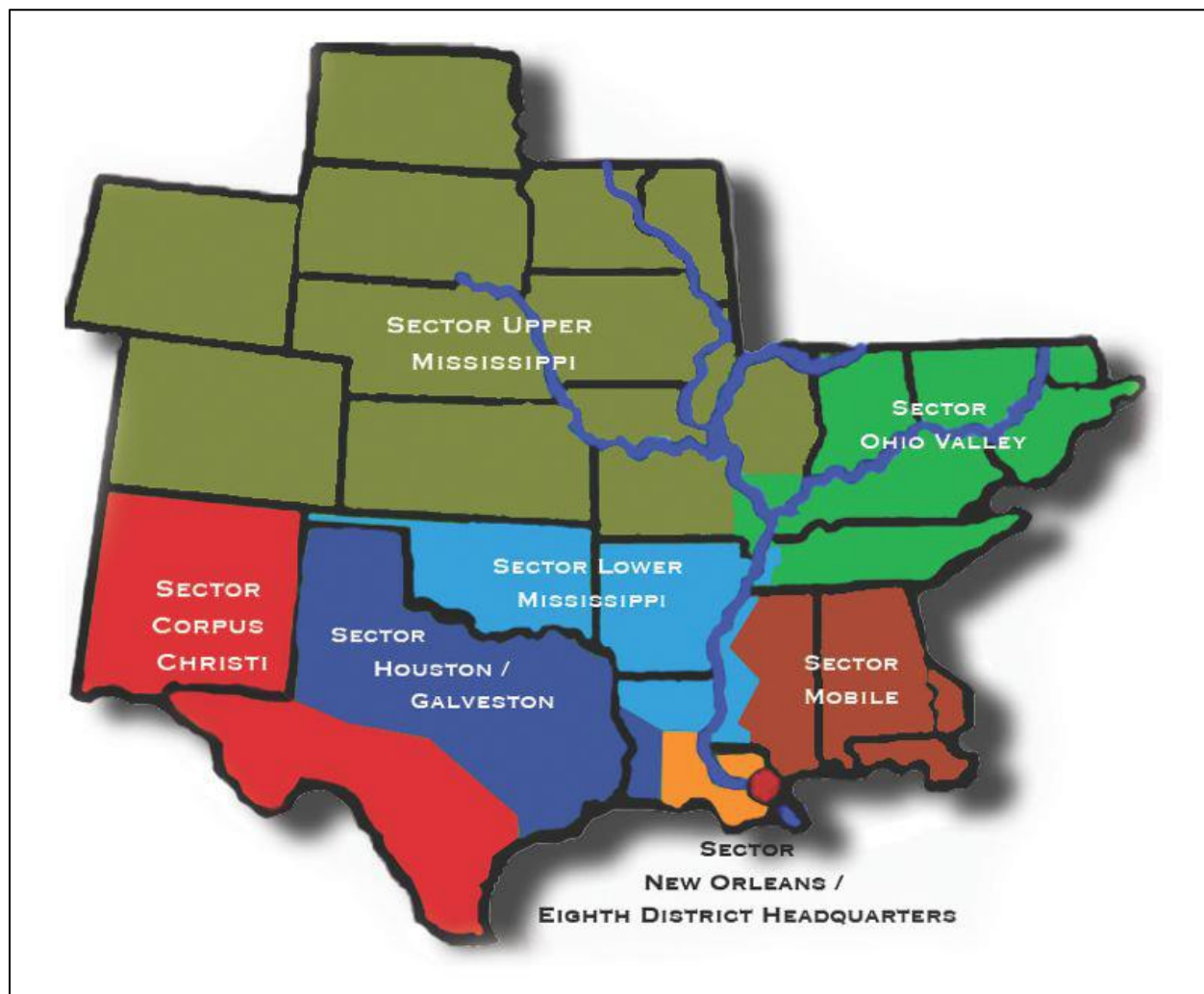




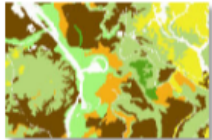


Map 11 : Coast Guard Districts & Sectors






Map 12: Soil & Amplification Survey



USA Soil Survey

 Map Service

Owner: [esri](#)
Date modified: 6/18/2013
5 Ratings

DescriptionPropertiesComments (7)

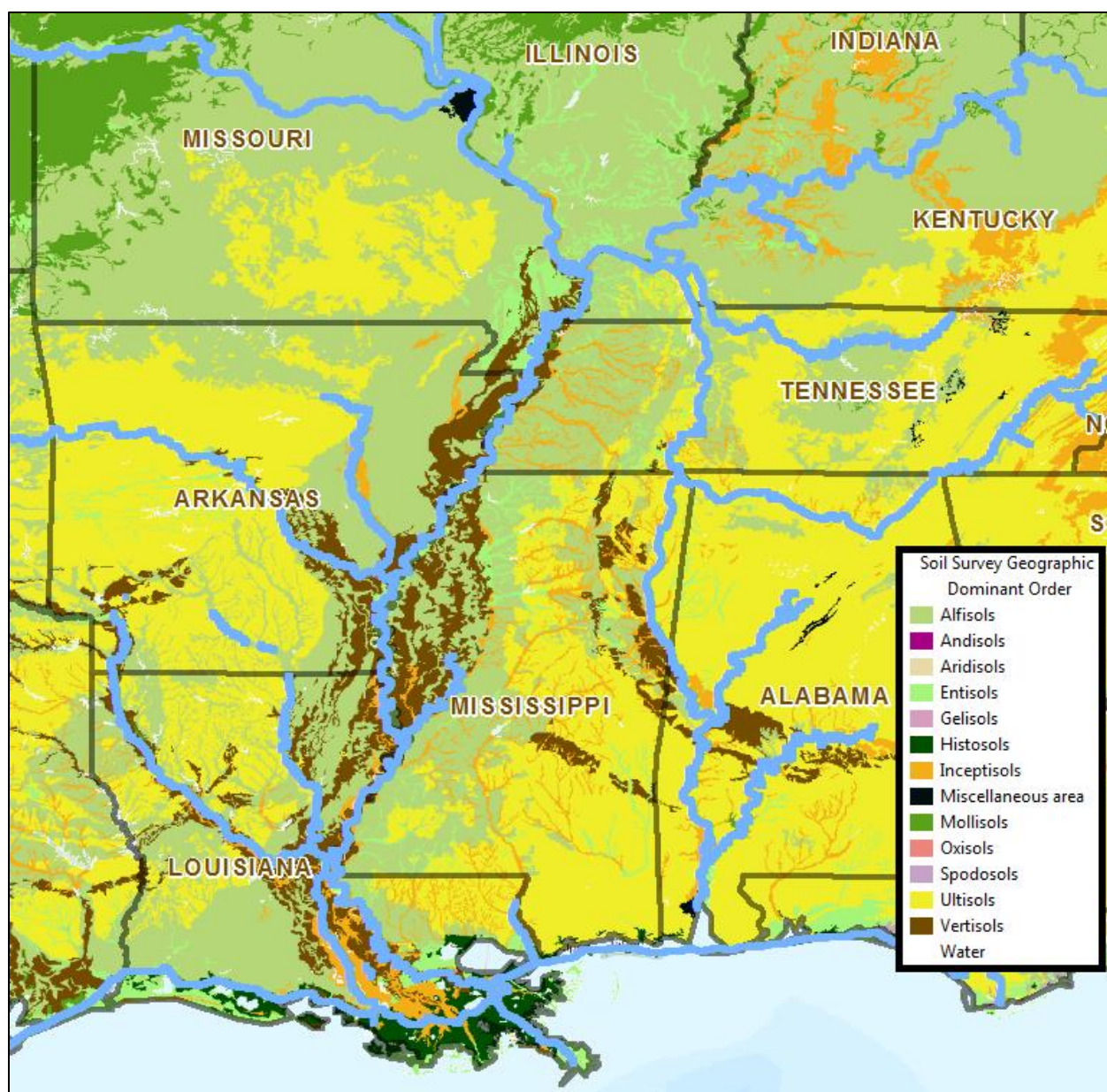
This map shows the Soil Survey Geographic (SSURGO) by the United States Department of Agriculture's Natural Resources Conservation Service. It also shows data that was developed by the National Cooperative Soil Survey and supersedes the State Soil Geographic (STATSGO) dataset published in 1994. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships, and county natural resource planning and management. The user should be knowledgeable of soils data and their characteristics. The smallest scale map shows the Global Soil Regions map by the United States Department of Agriculture's Natural Resources Conservation Service.

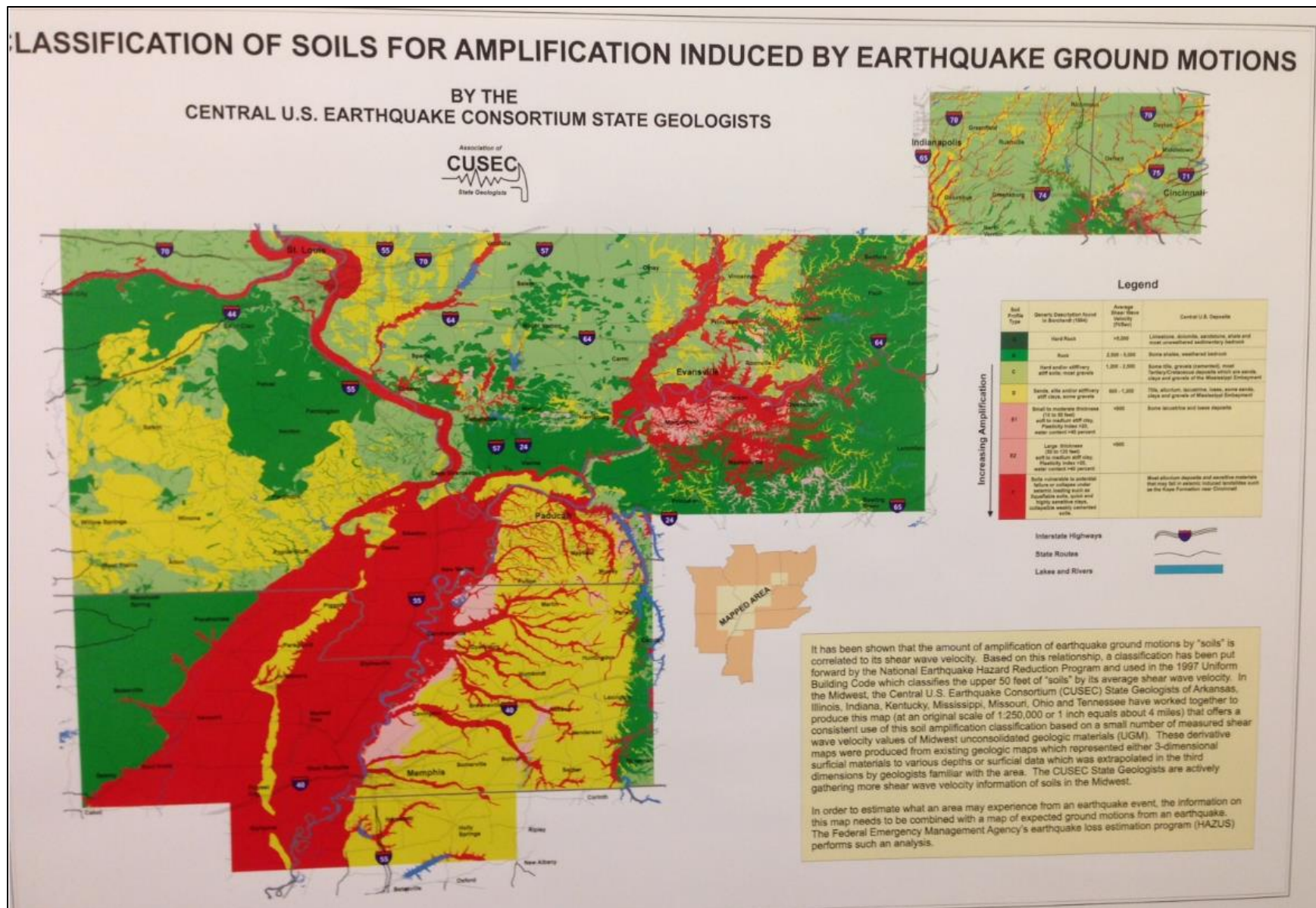
A web map that combines this service with the [World Hydro Reference Overlay map service](#) for easy viewing is [here](#).
 ArcGIS 9.3 or more recent is required to use this map service.

Scale Range: 1:591,657,528 down to 1:9,028
Coordinate System: Web Mercator Auxiliary Sphere (WKID 102100)
Tiling Scheme: [Google Maps/Bing Maps](#)

Map Service Name: Soil_Survey_Map
ArcGIS Desktop/Explorer URL: <http://services.arcgisonline.com/arcgis/services>
ArcGIS Server Manager and Web ADF URL: http://server.arcgisonline.com/arcgis/services/Specialty/Soil_Survey_Map/MapServer
REST URL for ArcGIS Web APIs: http://server.arcgisonline.com/ArcGIS/rest/services/Specialty/Soil_Survey_Map/MapServer
SOAP API URL: http://services.arcgisonline.com/ArcGIS/services/Specialty/Soil_Survey_Map/MapServer?wsdl
Publication Date: December 2010

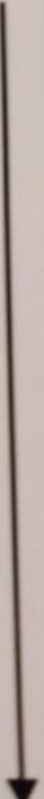
Update Frequency: As needed

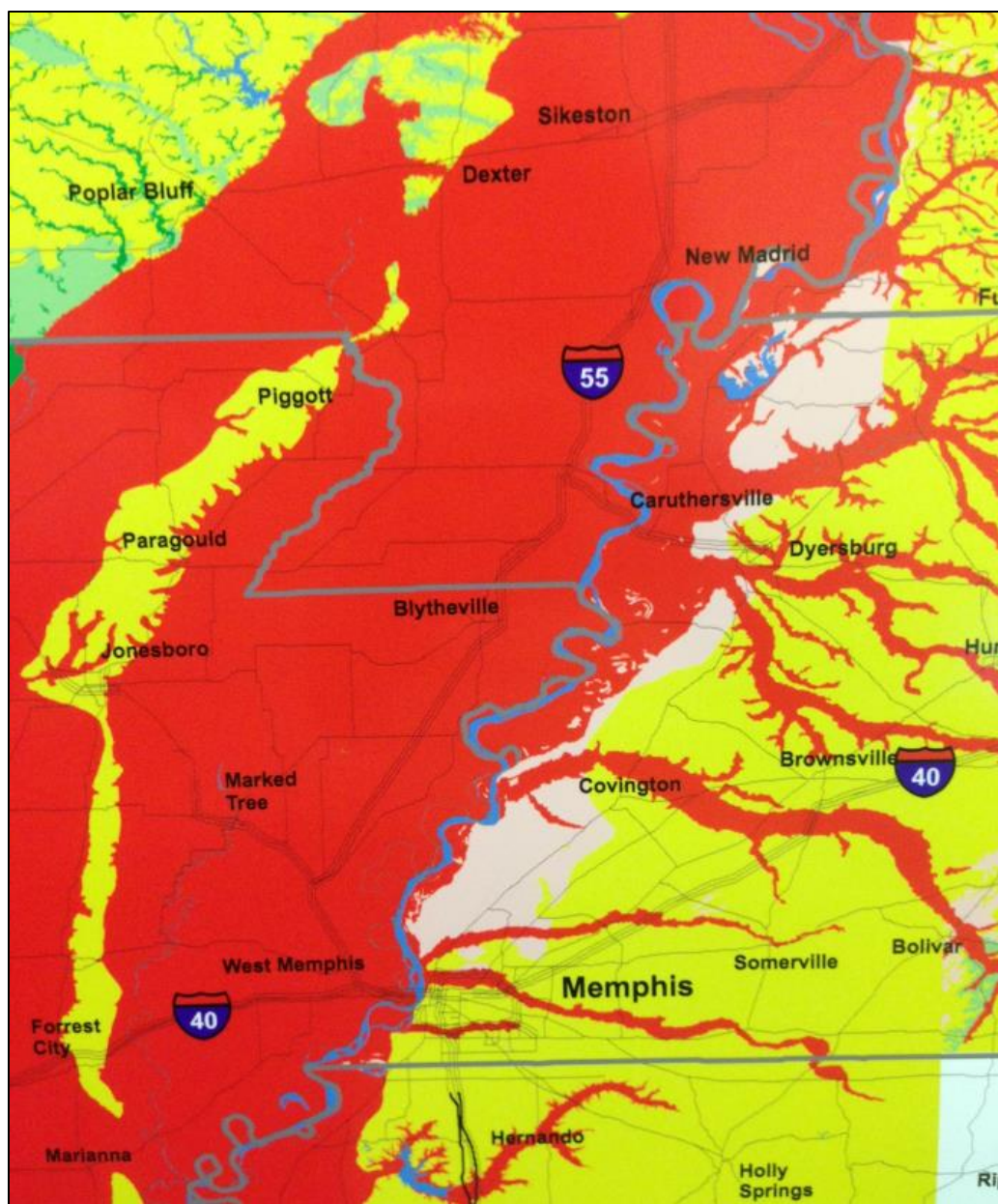




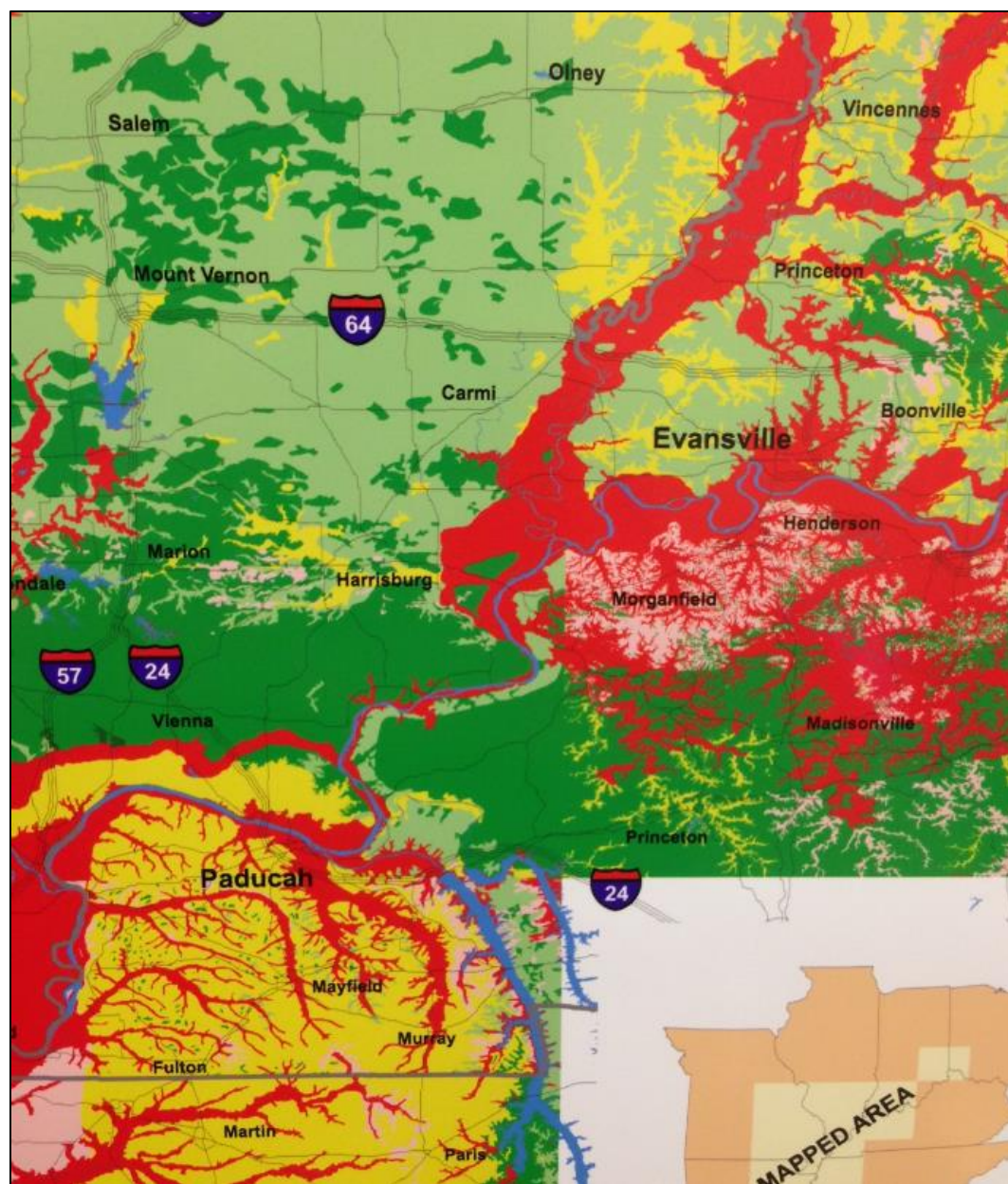
| Legend | | | |
|-------------------|---|--------------------------------------|---|
| Soil Profile Type | Generic Description found in Borchardt (1994) | Average Shear Wave Velocity (Ft/Sec) | Central U.S. Deposits |
| A | Hard Rock | >5,000 | Limestone, dolomite, sandstone, shale and most unweathered sedimentary bedrock |
| B | Rock | 2,500 - 5,000 | Some shales, weathered bedrock |
| C | Hard and/or stiff/very stiff soils; most gravels | 1,200 - 2,500 | Some tills, gravels (cemented), most Tertiary/Cretaceous deposits which are sands, clays and gravels of the Mississippi Embayment |
| D | Sands, silts and/or stiff/very stiff clays, some gravels | 600 - 1,200 | Tills, alluvium, lacustrine, loess, some sands, clays and gravels of Mississippi Embayment |
| E1 | Small to moderate thickness (10 to 50 feet) soft to medium stiff clay, Plasticity Index >20, water content >40 percent | <600 | Some lacustrine and loess deposits |
| E2 | Large thickness (50 to 120 feet) soft to medium stiff clay, Plasticity Index >20, water content >40 percent | <600 | |
| F | Soils vulnerable to potential failure or collapse under seismic loading such as liquefiable soils, quick and highly sensitive clays, collapsible weakly cemented soils. | | Most alluvium deposits and sensitive materials that may fail in seismic induced landslides such as the Kope Formation near Cincinnati |

Increasing Amplification

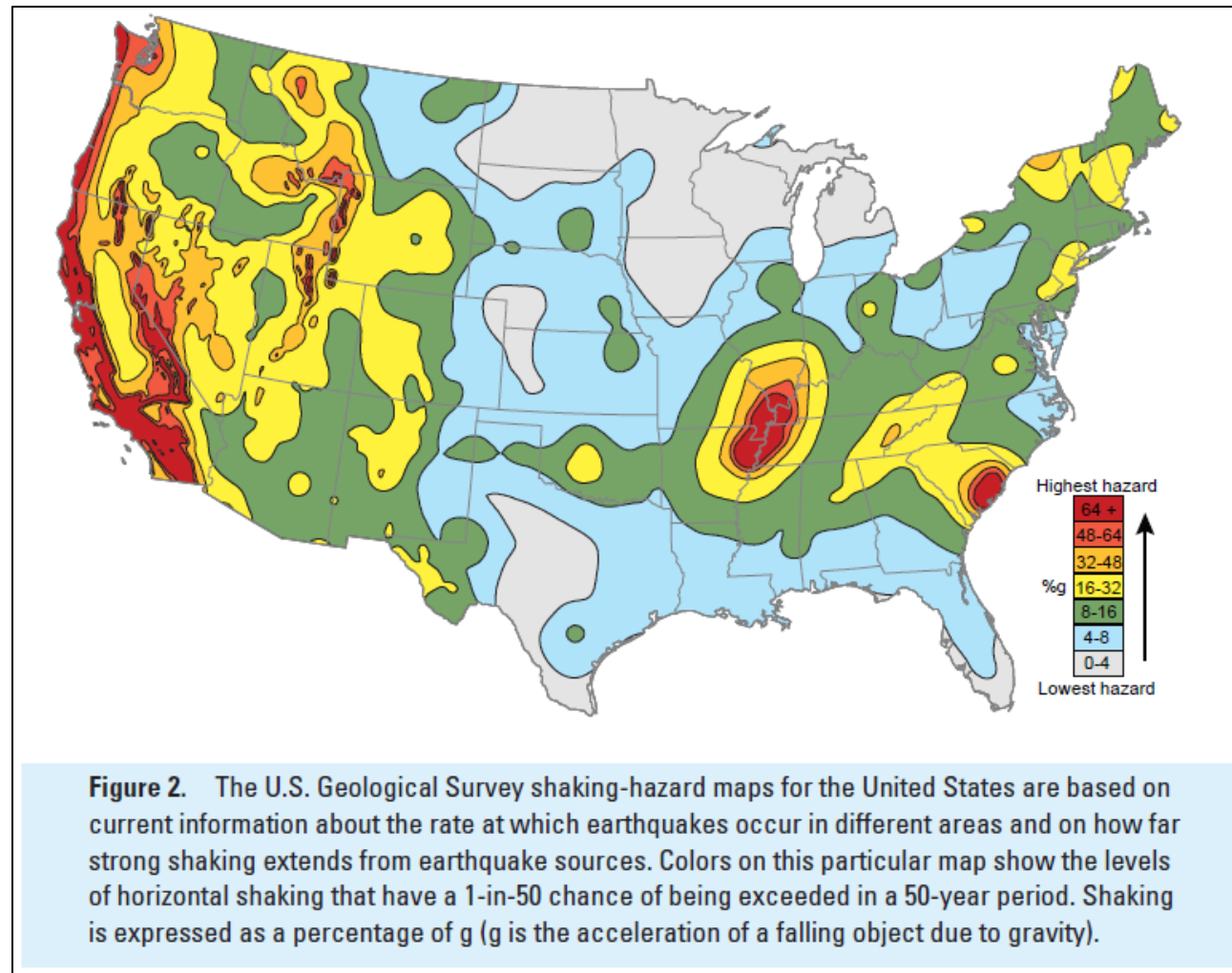








Map 13: Seismic Impact Zones



Source: USGS, Earthquake Hazard in the Heart of the Homeland

