



Invasive Pest Pathway Assessment and Survey Targeting

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**United States Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine**



Plant Protection and Quarantine

Mission:

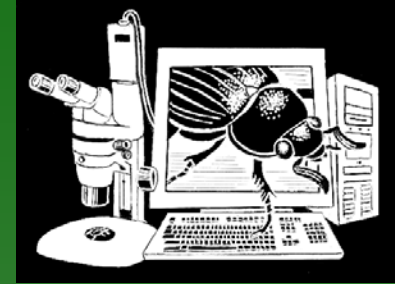
Safeguard U.S. agricultural and natural resources from risks associated with the entry, establishment, or spread of plant pests and diseases, as well as invasive and harmful weeds.

Responsibilities:

- Pest surveillance, detection, and identification
- Pest eradication and management
- Regulation and certification of plants and plant products for import and export
- Crop biosecurity and emergency response

What is it?

- **Suspect Samples/ Presumptive Positives**
 - State Departments of Agriculture
 - Cooperating Land Grant Universities
 - National Plant Diagnostic Network (NPDN)
 - Private Laboratories
- **Confirmatory Identification**
 - PPQ National Identification Service (NIS)
 - National Specialists
 - ARS Systematic Entomology Laboratory (SEL)
 - PPQ Center for Plant Health Science and Technology (CPHST)



Diagnostics and ID

Assessment

Formulating a strategy

Obtaining support

Implementation

Should we take action?

- Known Potential Pest
 - Select Agent
 - Eminent threat
 - Cooperative Agricultural Pest Survey target list
 - Response Guideline Available
- New Pest Advisory Group
- Delimiting Survey
- Trace Back/Trace Forward Investigations

Detection and ID

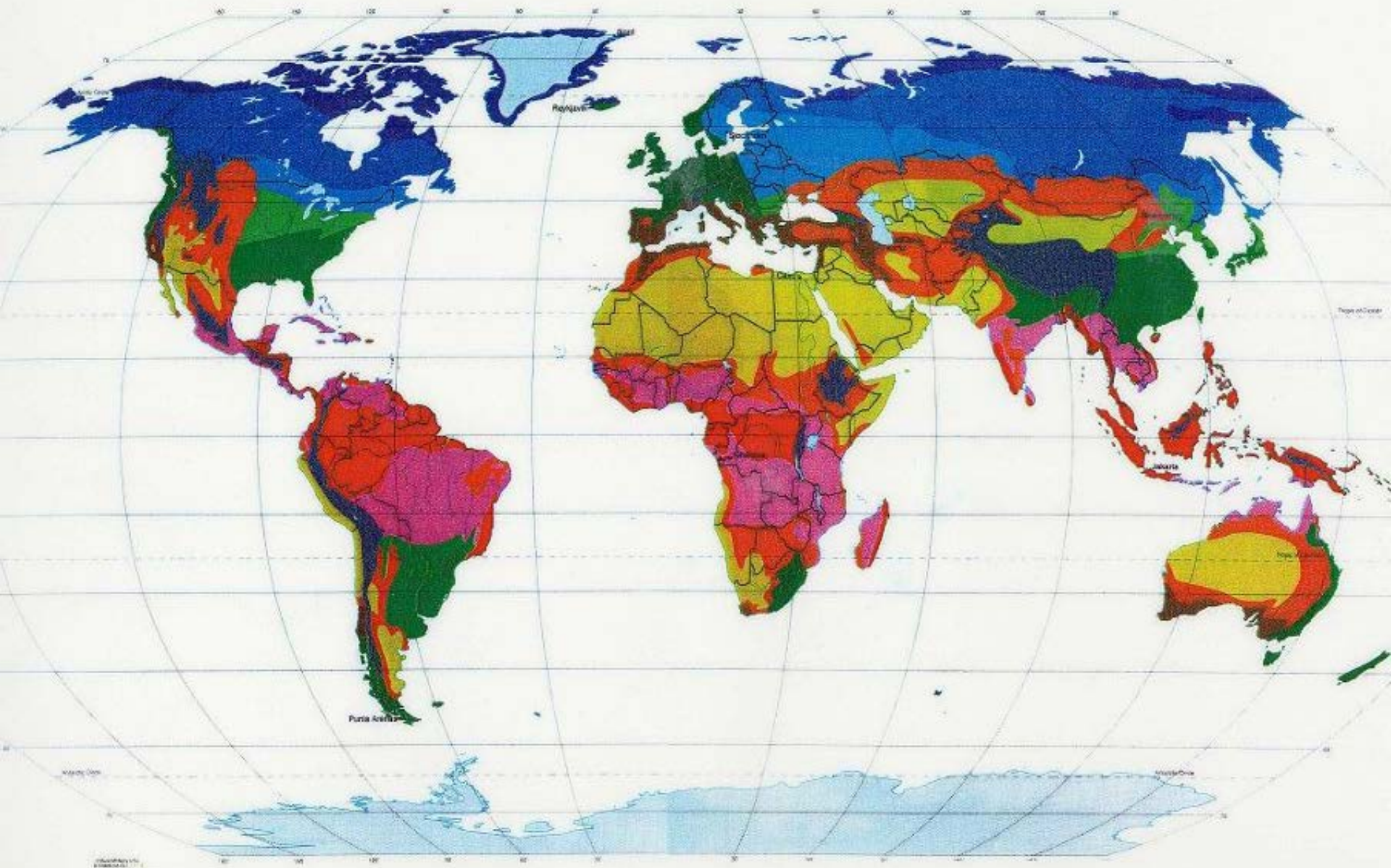
Assessment

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Implementation

WORLD CLIMATE



What Actions Should We Take?

- Cooperative Effort
- Review Response Guidelines
- Convene Science Panel
- Consider Options
 - Eradication
 - Suppression
 - Containment
- Determine Goal and Develop Strategy

Detection and ID

Assessment

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Clearing the Way

Clearing the Way

- Roles and Responsibilities
- Legal Authorities
- Personnel and Resources
- Rulemaking Process
- Environmental Issues
- Budget Formulation

Detection and ID

Assessment

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Show Me The Money

Primary Sources

- Annual Regional Allocations
- APHIS Contingency Funds
- USDA Transfer of Funds

Type of Funding

- Emergency – Cost Share
- Appropriated

Instruments

- Cooperative Agreements
- Detailed Financial and Work
- Plans



Initial Response – Organized Chaos

- Incident Command System
- Incident Management Teams
- ROSS – Resource Ordering System

Detection and ID

Assessment

Formulating a strategy

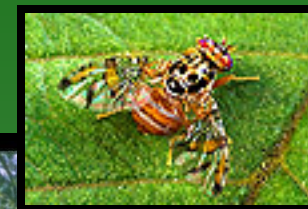
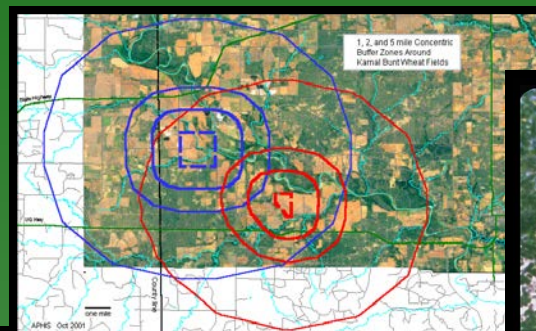
Obtaining support

Implementation



Components of Pest Programs

- Survey
- Identification/ Diagnostics
- Regulatory
- Control
- Public Outreach
- Research
- Restoration
- Data Management



- National Survey
- Delimiting
- Monitoring
- Verification



2016 Trace forward – Furniture

- **Contacted in April 2016**
- **Log furniture items from by a Minnesota company (Sportman's guide)**
- **A longhorned beetle ID'd a Brown fir longhorned beetle, *Callidiellum villosulum* (Fairmaire)**
- **Eight customers in Missouri**
- **Worked in conjunction with MDA to coordinate pickup of material and destruction**

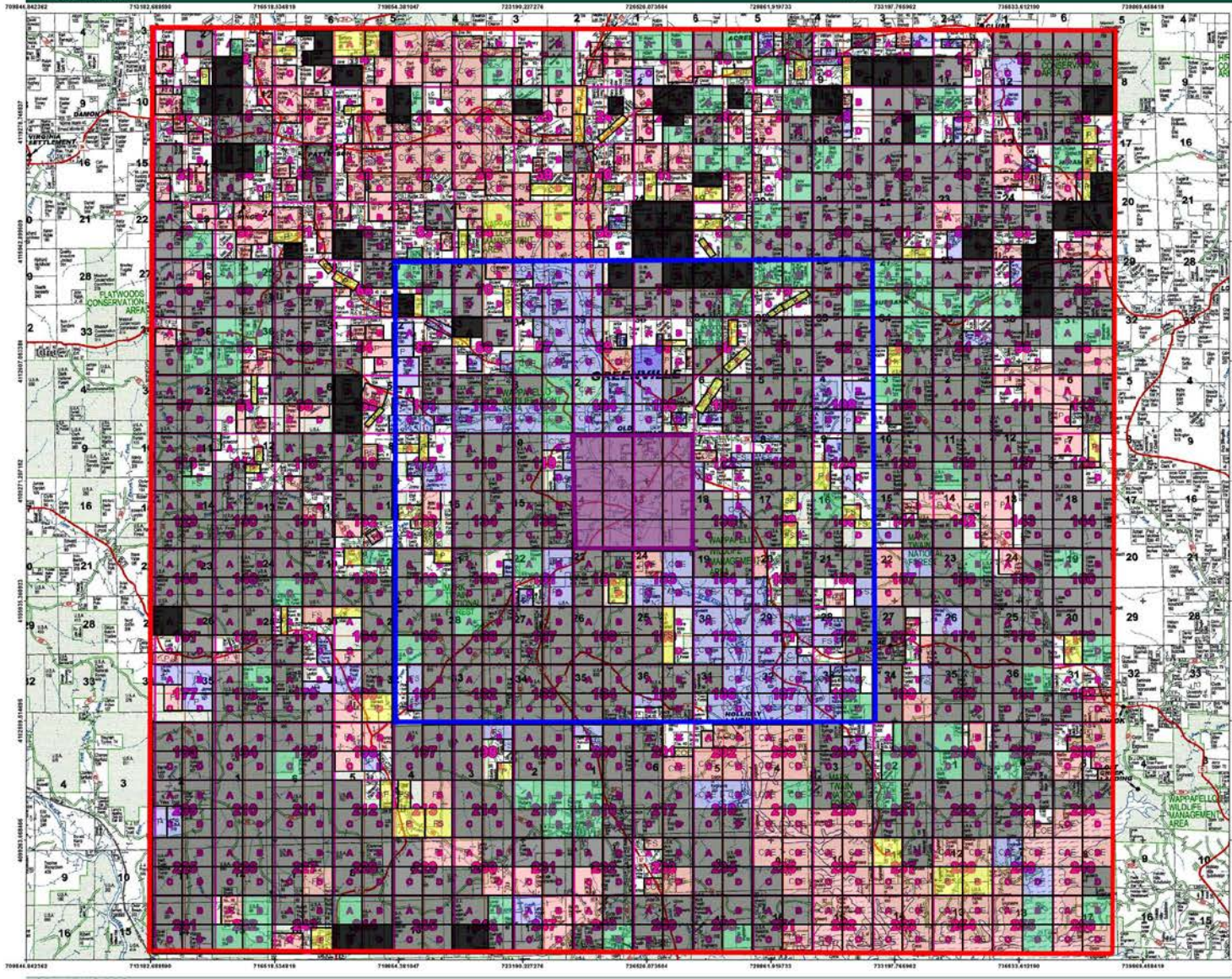


2009 EAB Delimit Survey

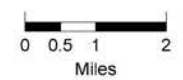
- **Project: Missouri USDA APHIS PPQ**
- **716 purple EAB traps were set within an 8-mile radius of USACE Wappapello Lake - GRA**
- **Survey focused on lowland and riparian areas where ash is prominent**
- **Traps were placed from May 6th through June 9th**
- **450 dd occurs in southern Missouri approximately the first week of April**
- **1,500 dd occurs statewide in Missouri approximately the first week of July**
- **Status – Completed**
- **Results – No new finds of EAB**
- **2010 – 908 traps set as of April 21, 2010**



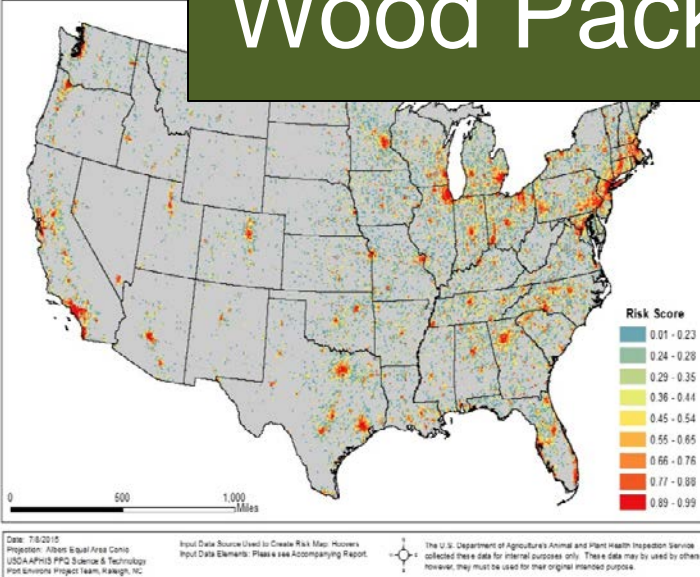
USA COE Wappapello Lake - Greenville Recreation Area Grid Survey



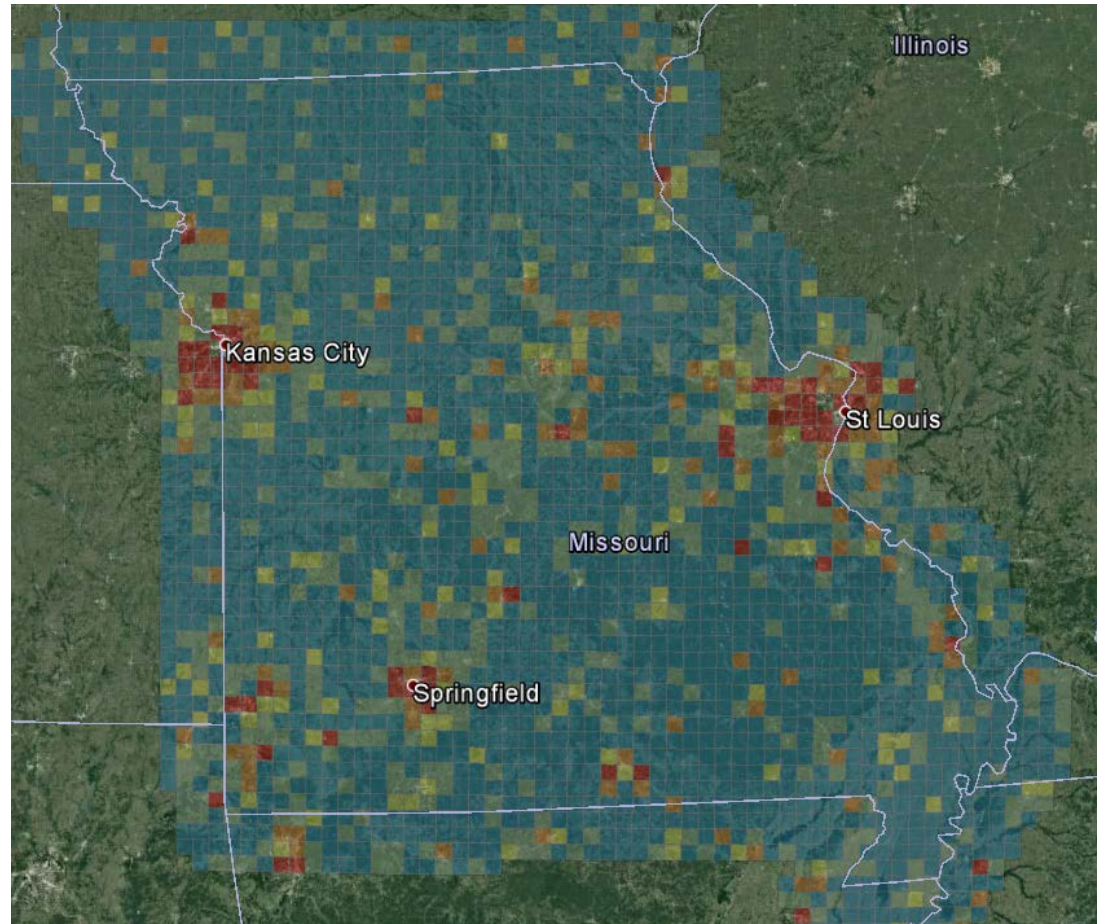
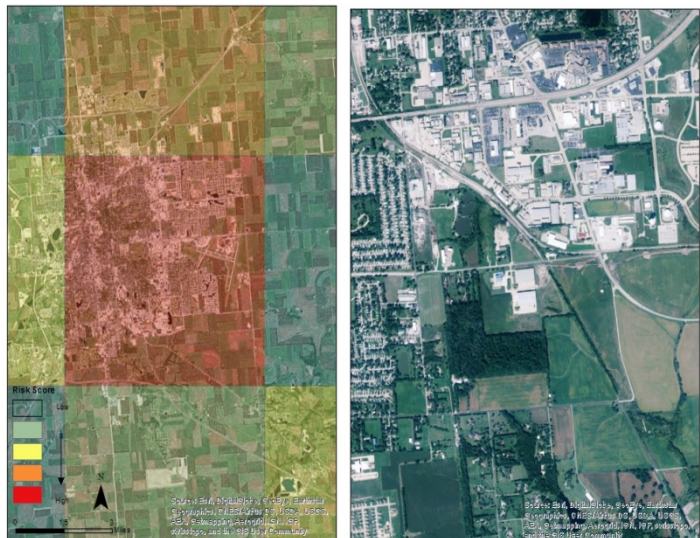
	Quarter Mile Grid = 1,024 Grids
	Grids - No admittance
	Grids - No Ash
	Grids - Infested Area (No traps)
	Traps per Grid - 1
	Traps per Grid - 2
	Traps along road
	Inspect Grids for Ash



Wood Packaging Material Tool



Wood Packaging Material Tool Output, December 2015
Zoomed in to determine precise survey location



USDA PERAL
(Plant Epidemiology and Risk Analysis
Laboratory)

Data Behind the Tool

- Location of businesses that are high risk for pest entry on WPM
- High risk businesses determined by evaluation of EAN (Emergency Action Notification) data
- EAN data stored in AQAS (Agriculture Quarantine Activity System)

Rank	Article	EANs Pest interceptions (5 year average)	EANs Pest interceptions 2013
1	Machinery and Machine Parts	226	191
2	Metal Products and Raw Metals	131	154
3	Stone Products – Other Stone Products	56	67
4	Electronics and Electric Components	47	34
5	Glass and Glass Products	31	14
6	Pallets/Crates/Spools	28	30
7	Stone Products – Ceramic Tile	26	72
8	Plastic and Plastic Products	21	36
8	Stone Products – Granite Products	18	9
10	Stone Products – Marble Tile	17	14

Data Behind the Tool

**Brick, Stone, and Related Construction
Material Merchant Wholesalers**

**Cut Stone and Stone Product
Manufacturing**

Tile and Terrazzo Contractors

Wood Pallet and Containers

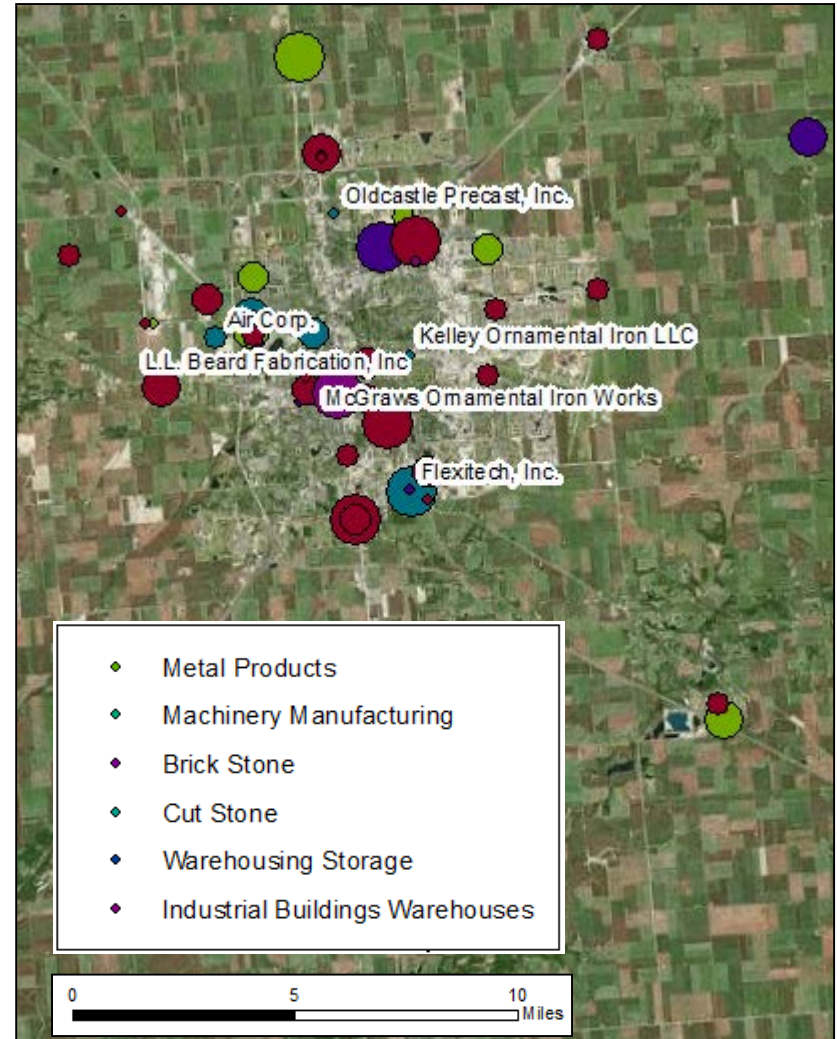
Metal Products

Machinery Manufacturing

Industrial Building Construction

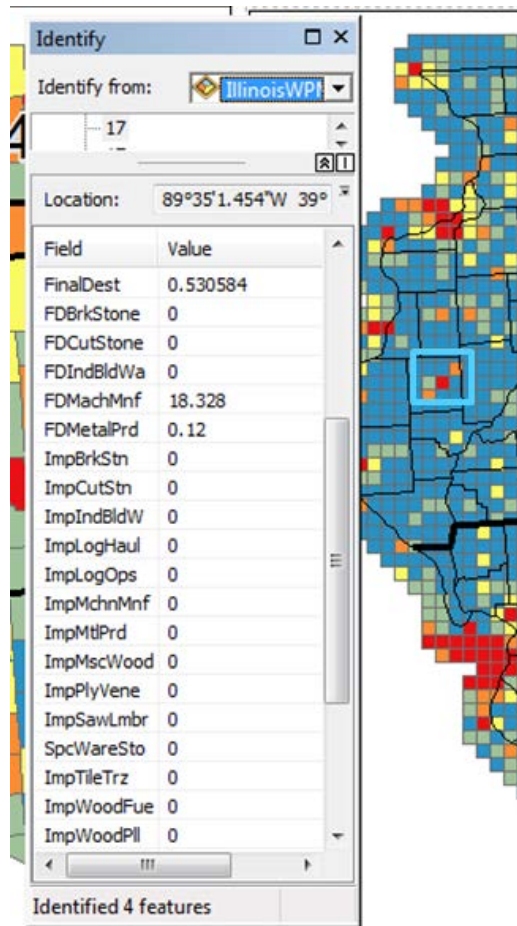
Warehousing and Storage

Wood Products



Uses

There are a bunch, and probably some we haven't thought of. But here are a few:



Identify

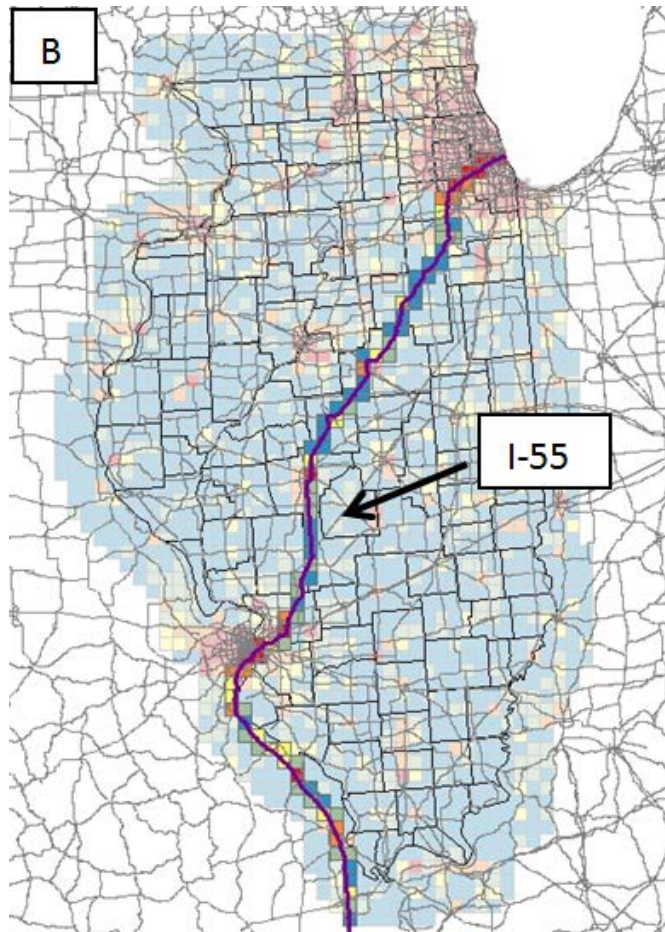
Identify from: IllinoisWPI

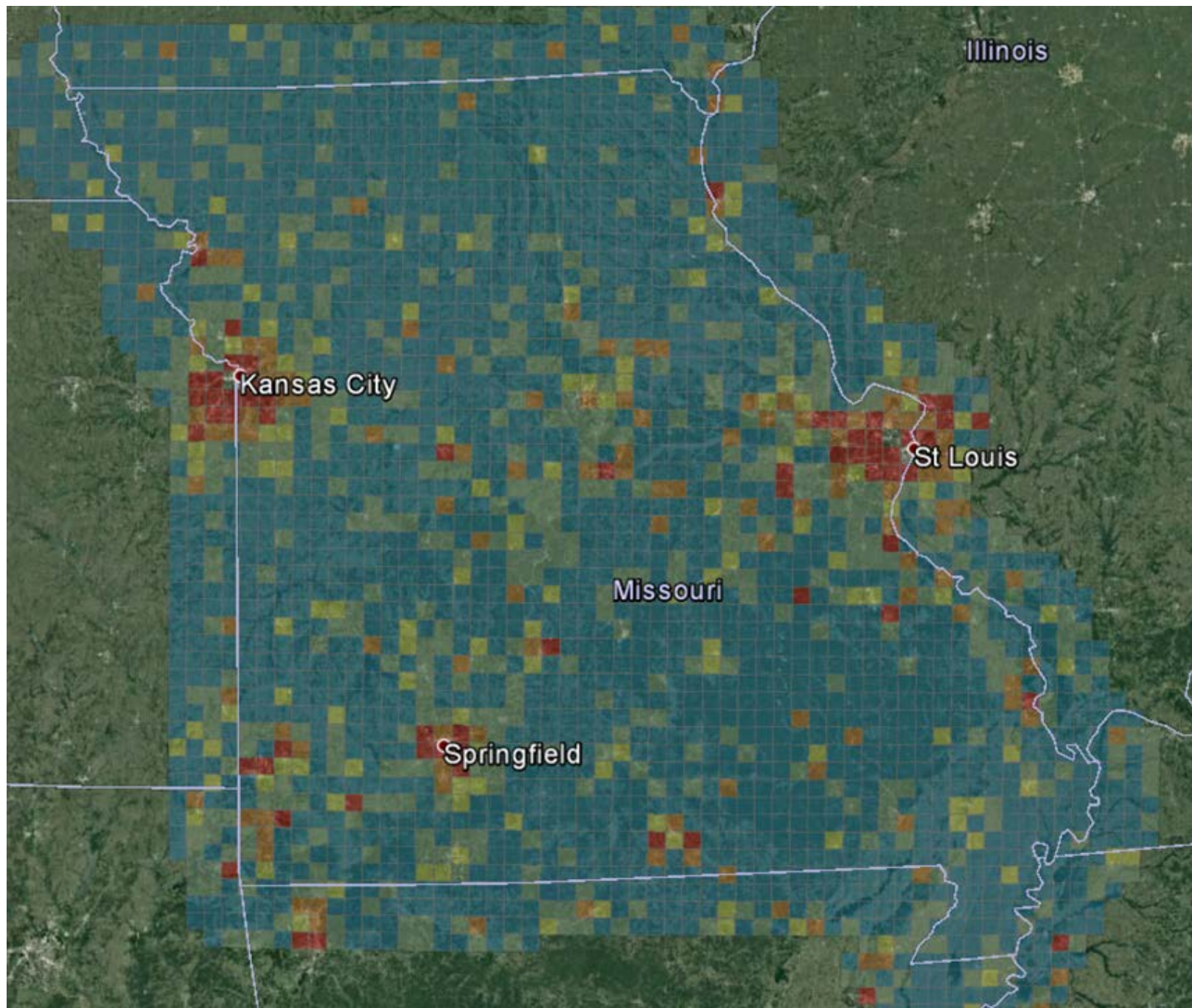
17

Location: 89°35'1.454"W 39°

Field	Value
FinalDest	0.530584
FDBrkStone	0
FDCutStone	0
FDIndBldWa	0
FDMachMnf	18.328
FDMetalPrd	0.12
ImpBrkStn	0
ImpCutStn	0
ImpIndBldW	0
ImpLogHaul	0
ImpLogOps	0
ImpMchnMnf	0
ImpMtlPrd	0
ImpMscWood	0
ImpPlyVene	0
ImpSawLmbr	0
SpcWareSto	0
ImpTileTrz	0
ImpWoodFue	0
ImpWoodPl	0

Identified 4 features





Illinois

Kansas City

St Louis

Missouri

Springfield

United States Department of Agriculture
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