

# Aggregates Mining: Attitudes and Perceptions Then and Now

**Joe McGuire, Ph.D.**

*Environmental Manager*

OMG Midwest, Inc.

and

**Gordie Stevens, P.G.**

*Senior Project Manager*

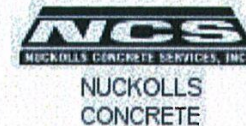
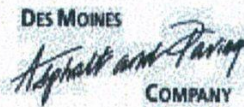
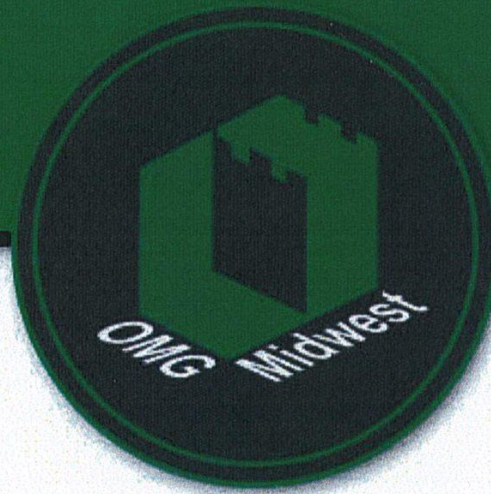
Patrick Engineering, Inc.

Illinois Mining Institute

August 21, 2012



# OMG Midwest, Inc.



© OMG Midwest, Inc.

A Division of [Oldcastle Materials](#)

**PATRICK**  
a family of companies





# Aggregates Mining:

## Attitudes and Perceptions Then and Now

### Resource Development

- Greenfields
- Existing Facilities
- Expansions





### Planning and Zoning Hearings

- Attitudes
- Perceptions
- Politics



NINBY Mob Scenes?

### **Attitudes and Perceptions: Potential Mining Impacts**

- Fields are destroyed
- Woods and groves are cut down
- Animals and birds leave
- Washing minerals poisons rivers and streams
- Fish are destroyed or driven away
- Life for those remaining is more difficult

**Mining Impact is a Greater Detriment  
Than Value of Resources**



# Aggregates Mining:

## Attitudes and Perceptions Then and Now

### GEORGII AGRICOLAE DE RE METALLICA LIBRI XII QVI

bus Officia, Instrumenta, Machinae, ac omnia denique ad Metallis  
tam spectantia, non modo luculentissime describuntur, sed & per  
effigies, suis locis insertas, adiunctis Latinis, Germanicisque appella-  
tionibus ita ob oculos ponuntur, ut clarius tradi non possint.

E I V S D E M

DE ANIMANTIBVS SVBERRANEIS Liber, ab Autore res  
cognitus: cum Indicibus diuersis, quicquid in opere tractatum est,  
pulchre demonstrantibus.



BASILEAE M D LVI

Cum Priuilegio Imperatoris in annos v.  
& Galliarum Regis ad Sexennium.

### DE RE METALLICA

On the Nature of Metals  
(Minerals)

Georgii Agricole

1556

Some  
Things  
Never  
Change!

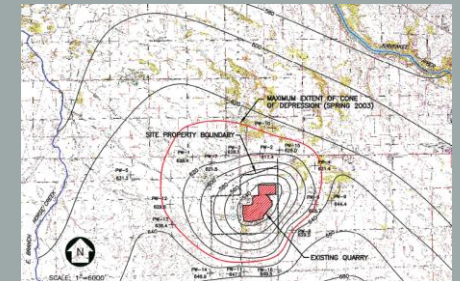
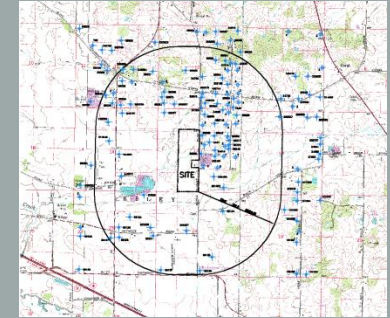


# Aggregates Mining:

## Attitudes and Perceptions Then and Now

### What are the “Modern” Mining Concerns?

Land Values  
Impact to Aquifers  
Impact to Water Wells  
Blasting Vibrations  
Traffic  
Noise  
Dust  
Wetlands  
Endangered Species  
Historic Uses – Archaeology  
Viewscape





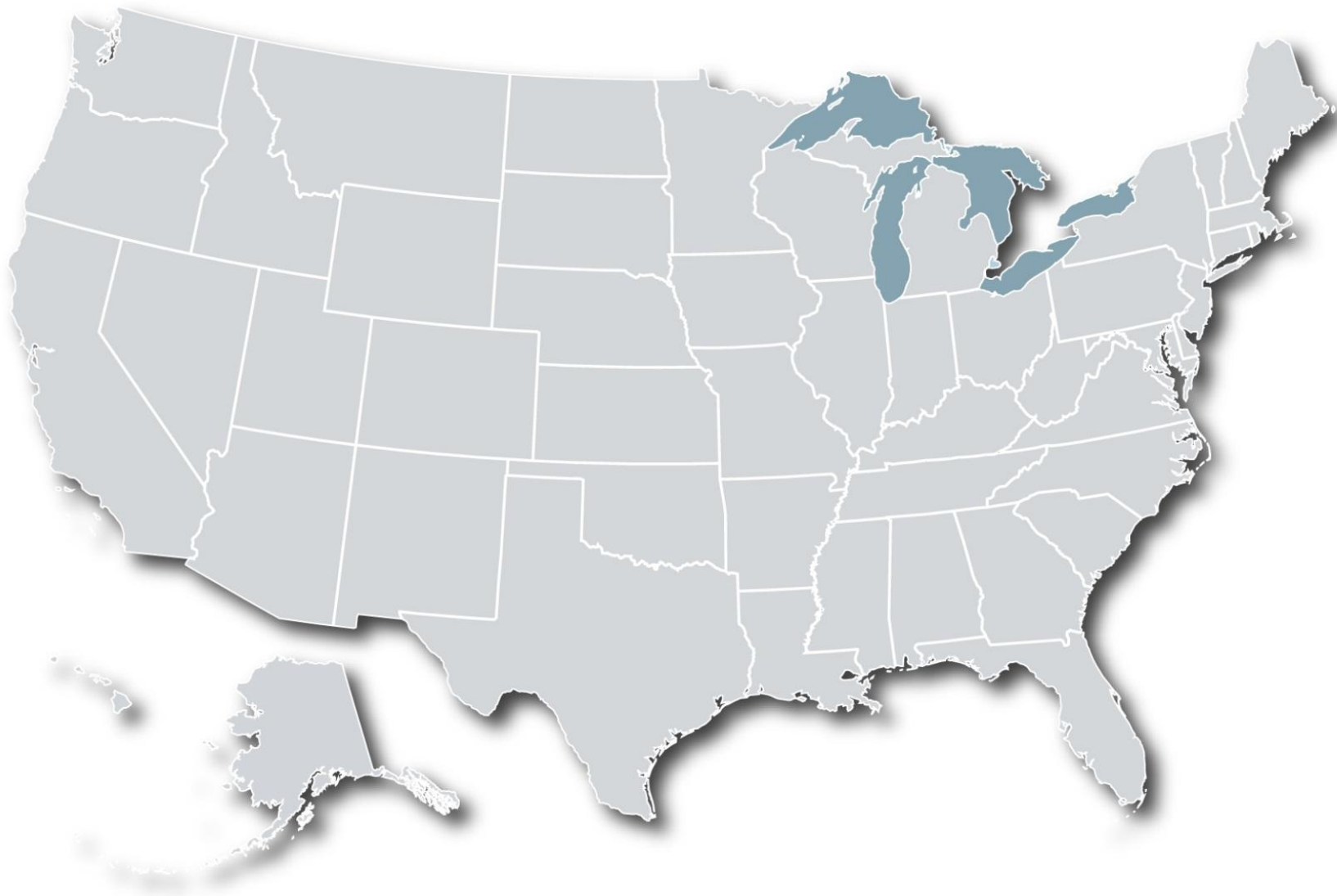
### We Ask Ourselves:

- What are the public attitudes and perceptions toward aggregate mining?
- What are our own perceptions?
- Is there a gap between the public and industry attitudes and perceptions?
- Have these attitudes and perceptions changed over time?
- If so, can these changes be measured?

How can we improve?

### Twenty Year Study

1988 to 2008





### **Twenty Year Study**

1988 to 2008

Midwestern United States



### **Twenty Year Study**

1988 to 2008

Midwestern United States

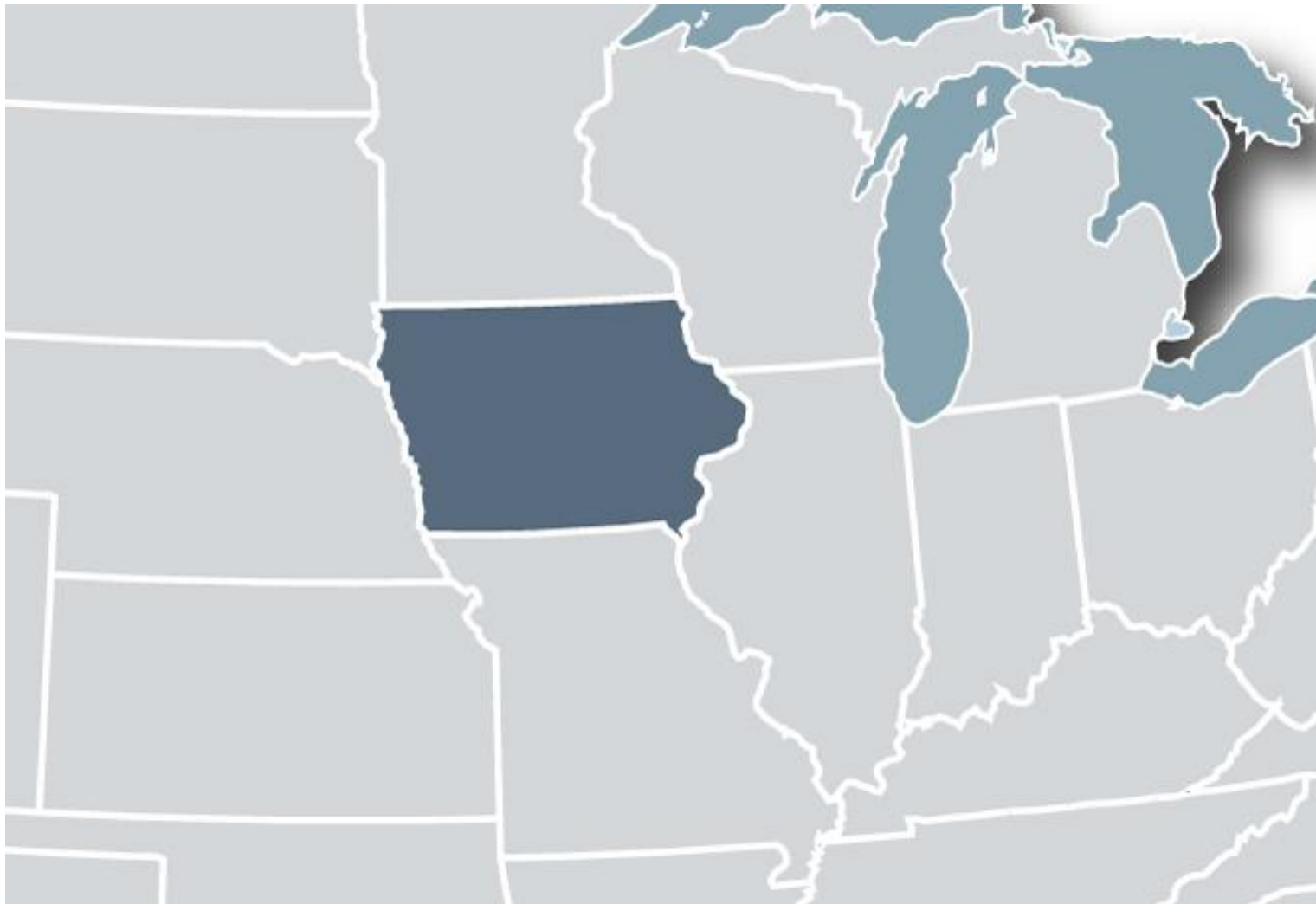




### Twenty Year Study

IOWA

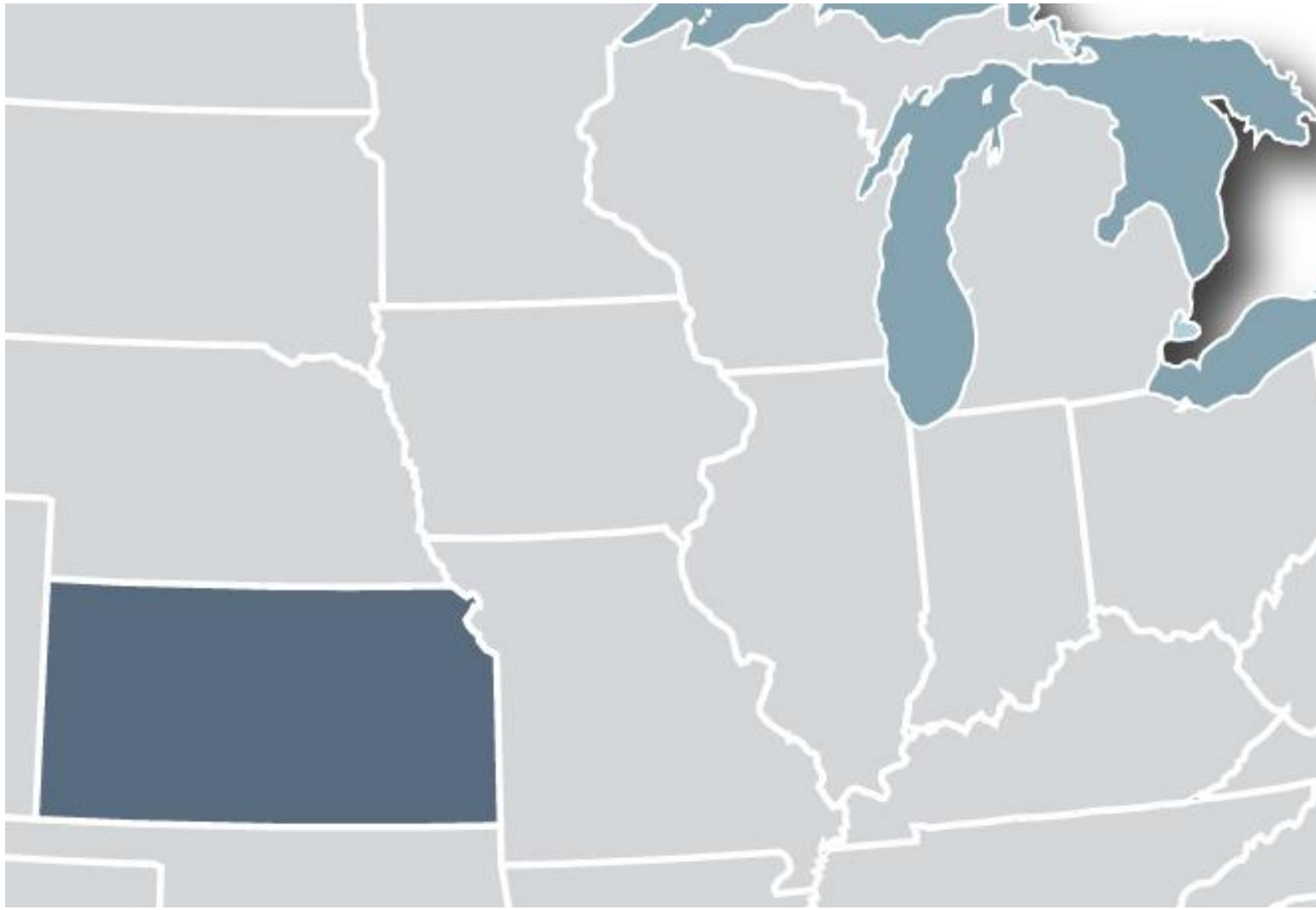
1988



### Twenty Year Study

KANSAS

1991





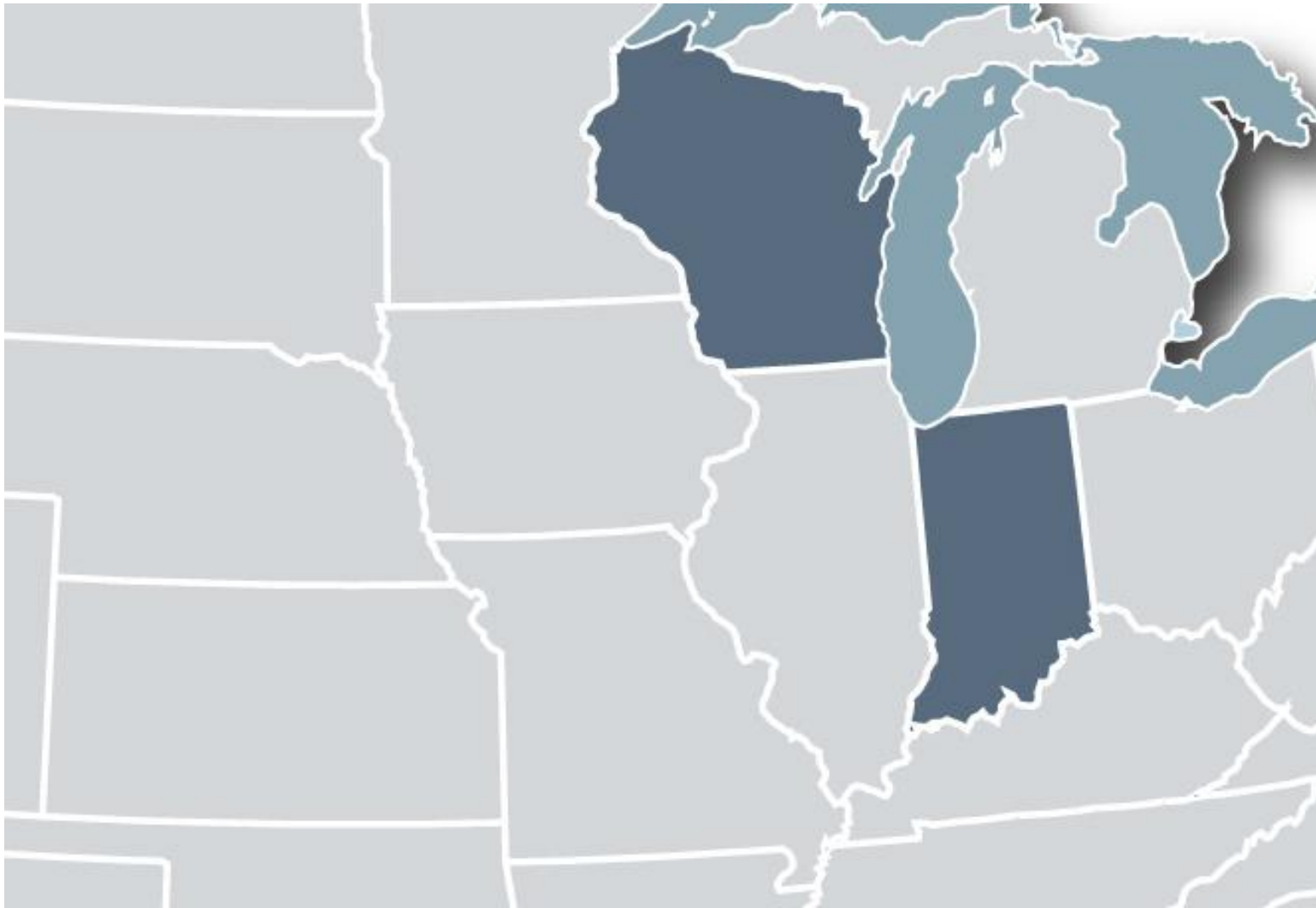
### **Twenty Year Study**

ILLINOIS

1998



### **Twenty Year Study** **WISCONSIN and INDIANA** **2008**





### Twenty Year Study

- Questionnaire Developed
  - Measure the level of opposition to permitting and expansion of aggregate mine sites
  - Measure perceived significant problems and concerns experienced during permitting
  - Identify perceived factors that contributed (or did not contribute) to the permitting problems
  - Identify process or actions that might be used to mitigate permitting problems
  - Rating Scale of 1 to 7

### Twenty Year Study

- Questionnaires Distributed

- Planning and Zoning Administrators

- Aggregate Producers

IOWA _____	1988
KANSAS _____	1991
ILLINOIS _____	1998
WISCONSIN & INDIANA__	2008

- Redistributed to P & Z Administrators

IOWA _____	2008
------------	------



### Twenty Year Study

Questionnaires Distributed to Aggregate Producers

State	Producers
Iowa	178
Kansas	134
Illinois	270
Wisconsin	88
Indiana	142
<b>Total</b>	<b>812</b>

### Twenty Year Study

Questionnaires Distributed to Planning and Zoning Administrators

State	P & Z
Iowa('88)	99
Kansas	105
Illinois	102
Iowa('08)	99
Wisconsin	72
Indiana	74
<b>Total</b>	<b>551</b>

### Twenty Year Study

#### Questionnaires Returned

	<b>Producers</b>	<b>P &amp; Z</b>	<b>Total</b>
Mailed	812	551	1,363
Returned	209	295	504
<b>Percent</b>	<b>26%</b>	<b>54%</b>	<b>37%</b>



## Attitudes and Perceptions Then and Now

### Results

- No significant difference between responses of either group
- Significant differences in overall attitudes and perceptions between 1988 and 2008

### Results

- 66% of Planning & Zoning jurisdictions had land use zoning regulations in 1988
- 97% of Planning & Zoning jurisdictions had land use zoning regulations in 2008
- 53% required a permit to conduct mining in 1988
- 84% required a permit to conduct mining in 1988

### Results

- All agreed they experienced few permitting problems in 1988
- Problems included location, blasting, noise, traffic, dust...insignificant minor “nuisance” issues
- All agreed they experienced many permitting problems in 2008
- Problems included location, blasting, noise, traffic, dust, groundwater, property values...“Significant Problems”



### Results

- 37% of Planning & Zoning jurisdictions said current operations have been a problem in 1988
- 56% of Planning & Zoning jurisdictions said current operations have been a problem in 2008
- Increased opposition to permit applications between 1988 and 2008

The Aggregates Mining Industry Has  
Not Made Much Progress Improving  
Public Attitudes and Perceptions

**MAY EVEN HAVE  
REGRESSED!**

## Attitudes and Perceptions Then and Now

### Why?

- Planning and Zoning administration turn-over
- Urban development and encroachment
- More educated populace
- More information readily available – e.g. internet
- Educational donations or open houses too localized – may help specific company or location, but not the industry
- Institutions of higher learning do not provide much information about mining, mining products or needs



### What Can Be Done?

- Both groups in the study agreed on actions producers could take to improve the zoning permit process...in 1998 and 2008
- Educational opportunities
- Work with Planning & Zoning on mining issues during the early planning stages
- Operate more responsibly
- Develop better reclamation plans

### **Educational Opportunities**

- Provide broader State and National educational opportunities
- Illinois and Indiana Aggregates Associations have Public Education and Information (PIE) Programs including teacher workshops
- Industry education classes for teachers at Iowa State and Northern Iowa
- Chicago Section of SME offers Teachers and students free or significantly discounted dinners at Section meetings
- Open Houses
- Educational Donations

### Work with Planning & Zoning

- Begin discussing mining issues during the early planning stages - before the permit application
- Set up a local public action committee to discuss mining issues - before the permit application –Get the public “vested”
- Listen and respond appropriately to early concerns - before the permit application
- Offer tours of local operations



### **Operate More Responsibly**

- Begin responsible operations of local facilities  
NOW - not just immediately before or shortly after  
a permit application
- Work to improve existing “responsible” operations

### **Better Reclamation Plans**

- Develop a detailed, well-presented reclamation plan
- Show multiple options on how a mine site can be reclaimed
- Work to develop a plan compatible with the neighborhood at the end of the mine life
- Develop interim plans to reclaim and use former mined-out areas while the overall mine is still operational
- Keep the overall public-good in mind

**Public Attitudes and Perceptions  
Have Changed**

**Industry Has Changed**

**BUT**

**CAN INDUSTRY CHANGE  
KEEP UP??**



### Questions?

