



# Trempealeau County Moratorium Committee

## Final Report Presentation

September 10, 2014



# Committee Members

Sally Miller, (Chair), County Board Supervisor

John Aasen, (Secretary), County Board Supervisor

Dave Larson, County Board Supervisor

Tim Zeglin, County Board Supervisor

Pam Nelson, (retired nurse), Board of Health

Sheryl Rhoda, Public Health Director

Cristeen Custer, (Secretary) Citizen Member

Elizabeth Feil, J.D., Citizen Member

Ellen Ott, APNP, Health Professional Member

Dr. Sarah Slaby, DVM, Citizen Member

Lois Taylor, RN, Health Professional Member

Paul Winey, PA-C, (Vice Chair), Health Professional Member



# Committee Facilitators and Support

Catherine Emmanuelle, UW Extension

Pat Malone, UW Extension

Steve Okonek, UW Extension

Department of Land Management

Real Property Lister

Land Records Department

A special thanks to Carol Bawek, Public Health  
Department Secretary, for all her organization with  
agendas, minutes and countless e-mails.





# Introduction

- Definition of Health – not just the absence of disease, but balance of physical, mental, emotional, and social well being
- Study Intent – identify realized and potential negative health impacts and recommend steps to mitigate their effect
- Citizen's rights vs. Industry rights
  - It should not be the responsibility of the citizens to prove harm, but the responsibility of the industry to prove safety



# Study Process

- Use of Health Impact Assessment (HIA) format
- Review of current literature, studies and governmental databanks
- Review of current State and Federal regulations
- Incorporation of focus group and survey findings
- Ongoing studies – air sampling/Industry survey



# Report Format

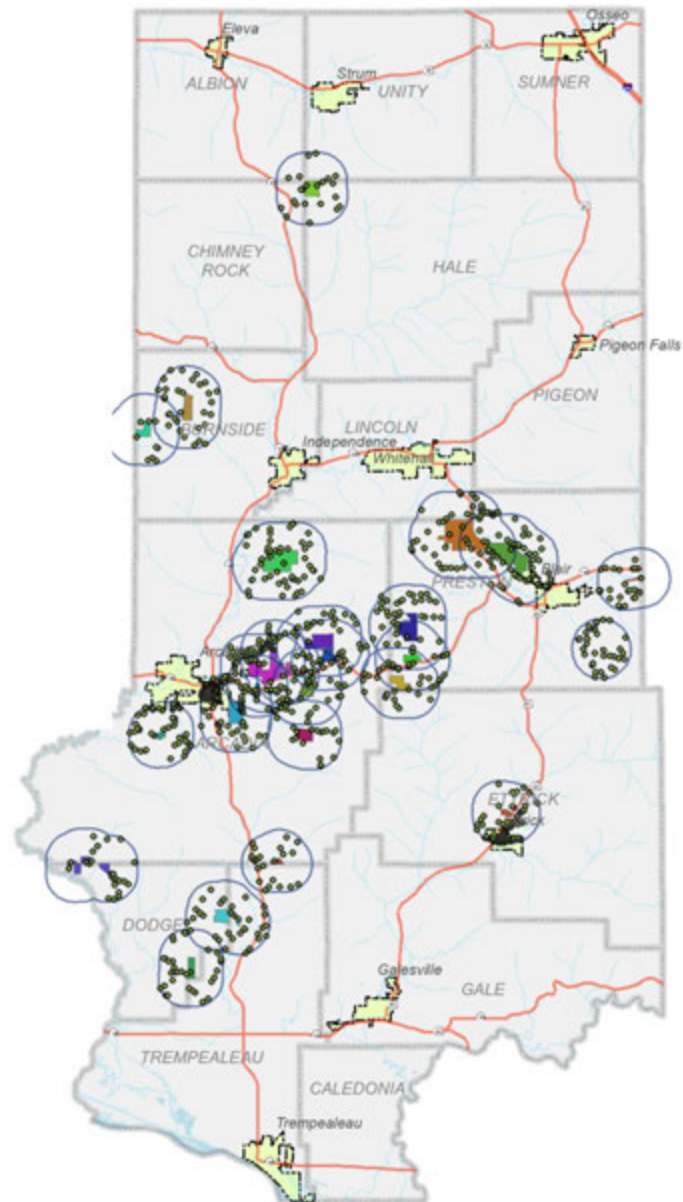
- Overall Executive Summary with general observations and recommendations
- Key Findings and Recommendations for each assigned area
- Individual reports with supporting documentation, recommendations, and appendices





# Impacts

- Physical
  - Heart, lung, digestive, reproductive, endocrine, neurologic, immunologic, cancer, and sleep deprivation
- Mental/Emotional
  - Depression, anxiety
- Socio-economic
  - Alienation in families and networks
  - Conflict between governing bodies
  - Uncertainty of taxes and property value
- Environmental
  - Damage to surface/ground water, air, and reclamation problems







# Overarching Recommendations

**Support Community Stability**

**Improve Pre-mining Evaluation**

**Require Mining Accountability**

**Guarantee Natural Resources after Mining  
Operations Cease**



# Support Community Stability

## **Economic & Demographic**

Routinely monitor socioeconomic indicators.

- Number and income of county residents working in county-based mines
- County-wide labor trends
- County migration patterns
- Per capita income
- Unemployment rates
- Demands for public health services and their related costs
- Value of owner-occupied housing
- Number and location of new dwellings
- Sales of property in close proximity to mines
- Impact on School aid formula
- Tax revenues (residential & industrial – towns & municipalities)



# Support Community Stability

## **Economic & Demographic**

- Enact a long-range strategic planning process to counteract the negative impacts from industrial sand mining.
- Increase the permit application fees on mining permits to cover the added expenses of monitoring and research. (CUP)





# Support Community Stability

## **Hunting Fishing & Tourism**

- Establish a process to monitor wildlife resources and tourism
- Designate “Scenic Beauty” areas where mining cannot commence
- Guide mining away from highly valued natural spaces in an effort to mitigate potential damage to the stability of the natural environment, including wildlife, land, and people. (CUP)

# Support Community Stability

## **Reclamation**

- Research the reclamation process of current mines
- Tighten reclamation plans to reduce open mining acres and reduce the amount of time the acres can be open (CUP)
- Ensure equal and compatible land use pre and post-reclamation in mining permits and compatibility with county and town land use plans (CUP)



# Support Community Stability

## **Annexation**

- Pass a resolution condemning the use of “balloon on a string” annexation
- Encourage cooperative boundary planning
- When cooperation is lacking, townships should consider requesting public interest opinion from WI Dept. of Administration
- Pass a resolution in support of state legislation to prohibit annexation when 50% of area extends further than ¼ mile from existing city limits







# Support Community Stability

## **Land Use Planning**

- Update Township land use plans
- Update County comprehensive plan

Limit the number, expansion and locations of mines immediately to allow for time to update land use plans and develop a comprehensive long-range strategic plan



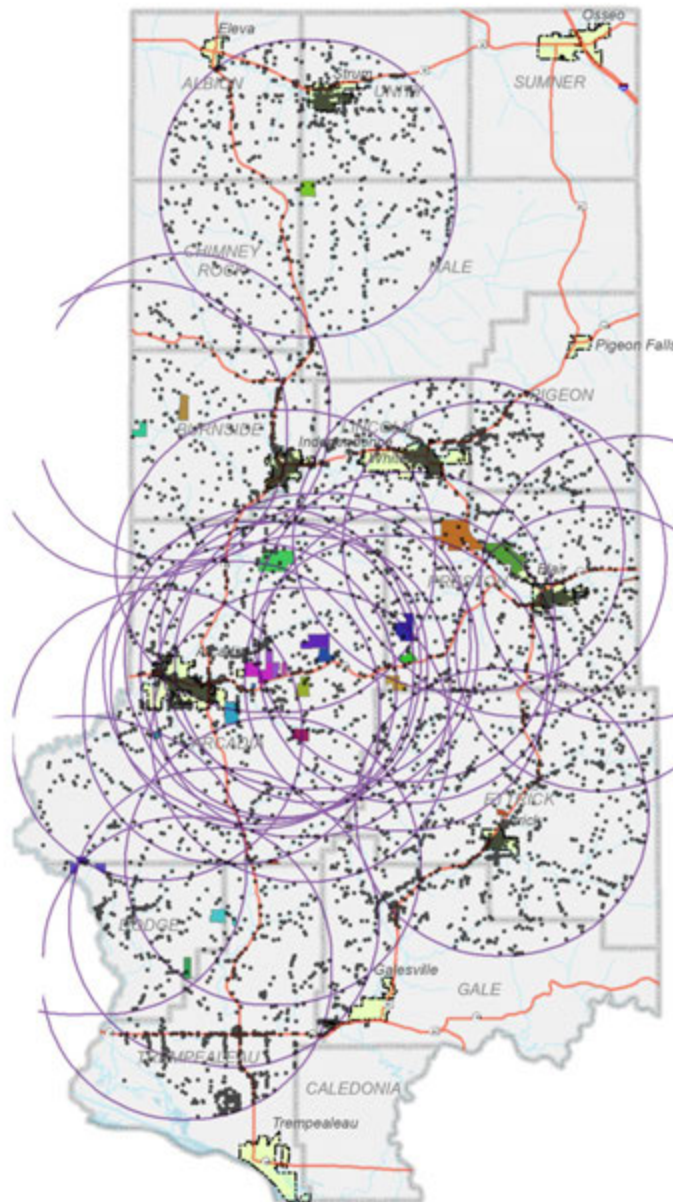


# Improve Pre-mining Evaluation

A comparison of the current land use of proposed mine sites with the potential impacts on the area should be a more defined part of the permit application

Consider cumulative effects of multiple mines within close proximity and the negative impacts







# Improve Pre-mining Evaluation

## **Light Pollution**

- Establish lighting ordinance for all sources of nighttime light
- Create lighting zones
- Require pre-construction analysis of existing nighttime conditions (CUP)

## **Air Quality**

- Report to Board of Health results of on-going air sampling









# Improve Pre-Mining Evaluation

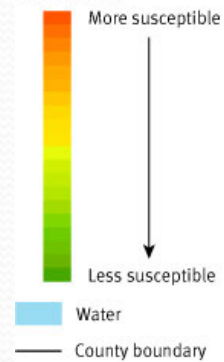
## **Ground Water Quality**

- Assess groundwater vulnerability for duration of mining
- Identify how all chemicals will be managed and potential ways they could enter county water resources (CUP)
- Identify and test all wells within 1 mile radius

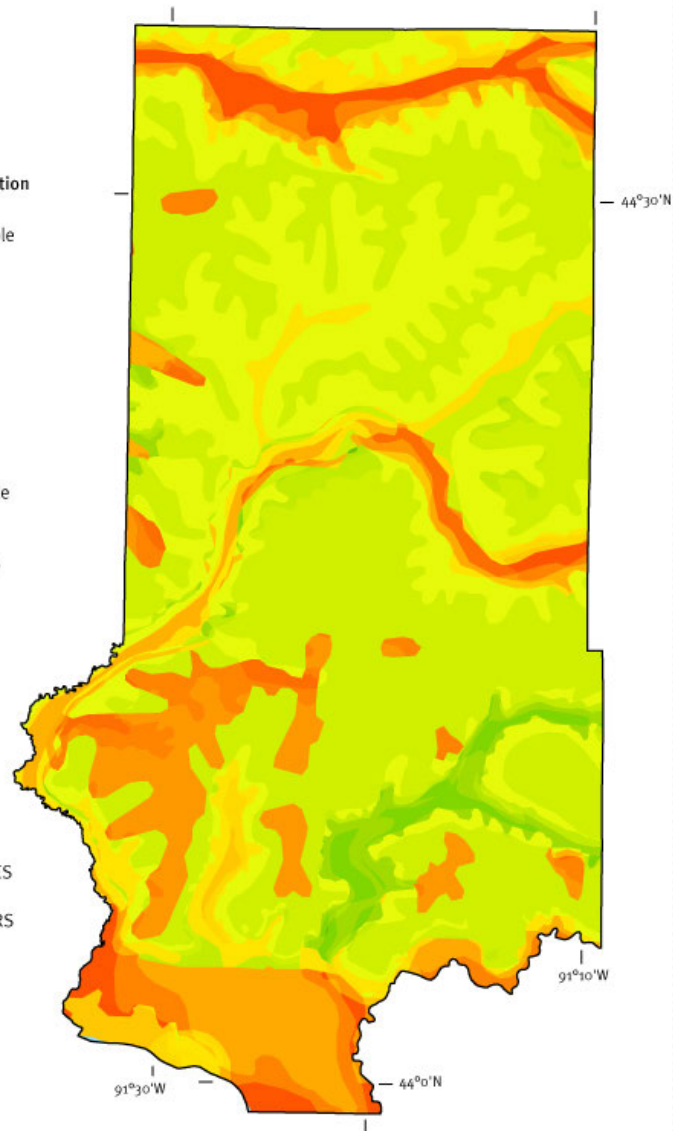
## Trempealeau County – Groundwater-Contamination Susceptibility Analysis

### EXPLANATION

Groundwater-contamination susceptibility



0 5 MILES  
0 5 KILOMETERS



This groundwater-contamination susceptibility map is a composite of five resource characteristic maps, each of which was derived from generalized statewide information at small scales, and cannot be used for any site-specific purposes.

Map source: Schmidt, R.R., 1987, Groundwater contamination susceptibility map and evaluation: Wisconsin Department of Natural Resources, Wisconsin's Groundwater Management Plan Report 5, PUBL-WR-177-87, 27 p.

Figure created for the "Protecting Wisconsin's Groundwater Through Comprehensive Planning" web site, 2007, <http://wi.water.usgs.gov/gwcomp/>





# Pre- Mining Evaluation

## **Surface Water Quality**

- Increase setback from exceptional water resources, trout streams and wetlands
- Enlarge storm water retention ponds (CUP)

## **Sound Pollution**

- Expand sound studies to include daytime noise





# Require Mining Accountability

## **Light Pollution**

- New development must comply with lighting requirements
- Monitor existing mines to ensure they are meeting lighting standards



# Require Mining Accountability

## **Air Quality**

- Monitor for particulate matter PM 2.5 and PM 10
- Sample every 3 days for three years with reduced frequency when compliance is established
- Mines responsible for reporting non-compliance
- Additional monitoring near vulnerable populations
- Permit holder responsible for collecting and reporting all data
- Annual report to county board and committees by relevant departments









# Require Mining Accountability

## **Ground Water Quality**

- Permit holder to install monitoring wells
- Permit holder to test monitoring wells quarterly
- Extend well protection for water quality and damage to a radius of one mile
- Permit holder to test drinking water wells annually
- Permit holder responsible for collecting and reporting all data
- Require use of food grade polyacrylamide-based flocculants



# Require Mining Accountability

## **Surface Water Quality**

- Line all process and settling ponds (CUP)
- Use closed-loop systems to maximize recycling and minimize contamination (CUP)
- Test pond sediments prior to use as reclamation material (CUP)
- Monitor natural waterways within ½ mile of mining sites
- Enclose materials and processes to minimize contact with storm water
- Mines responsible for reporting non-compliance (CUP)





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# Require Mining Accountability

## **Sound Pollution**

- Reduce nighttime noise to 40db
- Reduce daytime noise to average of 50 db
- Apply limits to all points on neighboring properties



# Guarantee natural resources after mining operations cease

## **Ground water**

- Monitor for at least 5 years following reclamation

## **Reclamation**

- Continue the monitoring and maintenance requirements of reclaimed land for at least five years before release of the reclamation bond is made. (CUP)
- Reclamation plan for structures post mining (CUP)





## Conclusion

- Protection of Health is Imperative
- This is not a simple issue, but will have lasting impacts and implications
- Careful decisions need to be made now before irreversible damage is done
- County residents health and rights should not be ignored in light of economic development