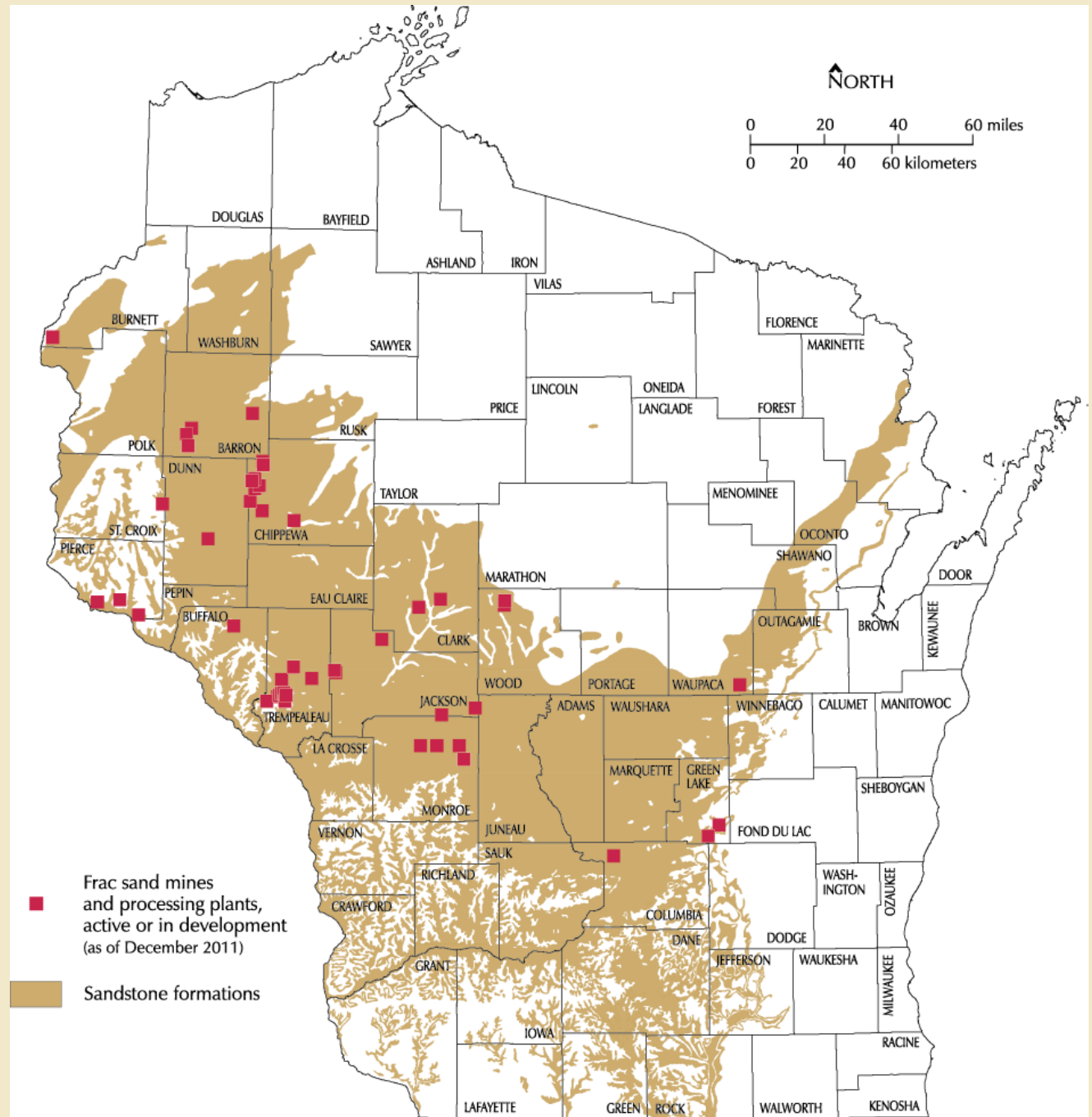


# Local Government and Industrial Sand Mining

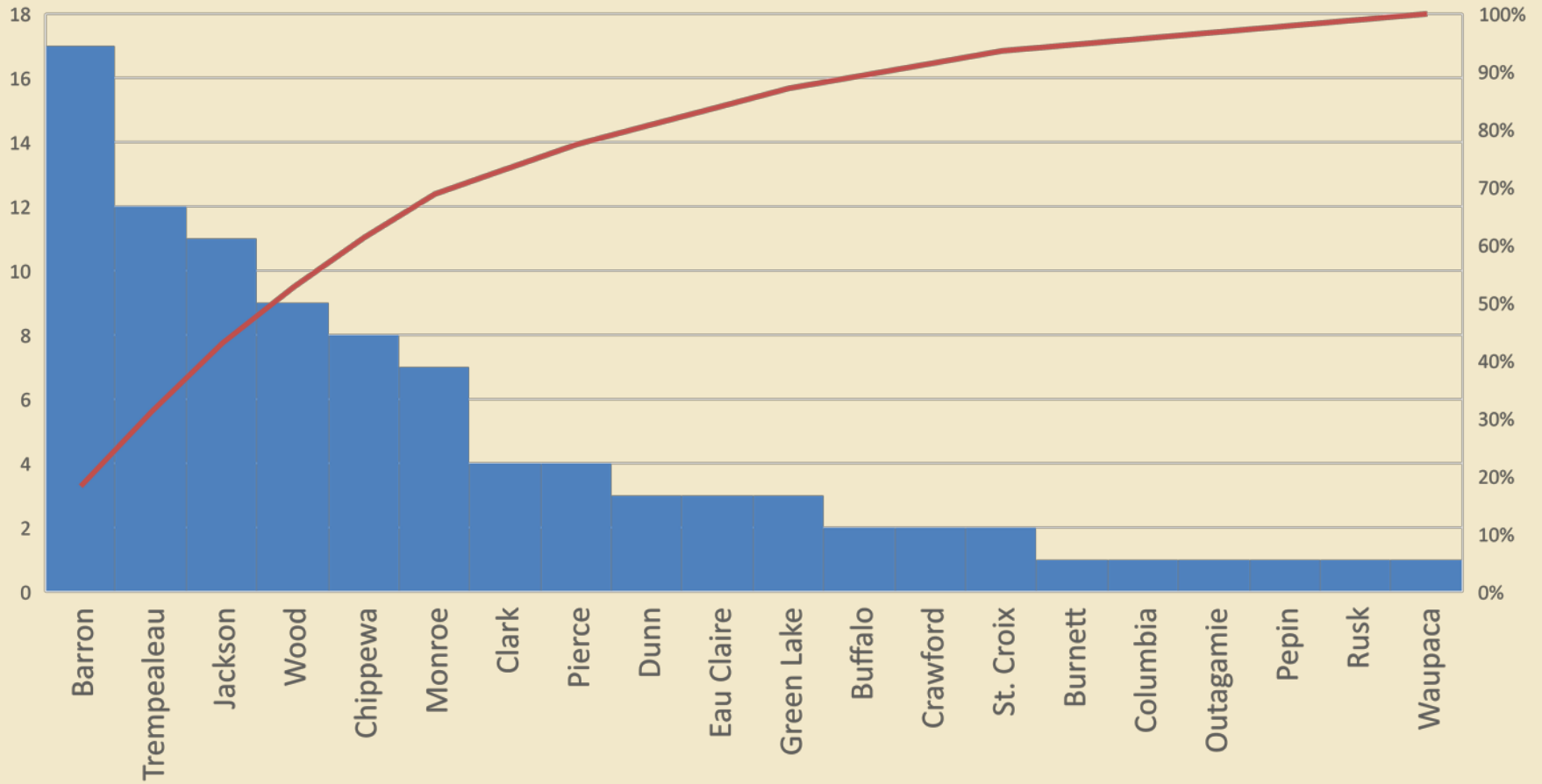
■ Frac sand mines and processing plants, active or in development (as of December 2011)

***Wisconsin has no known petroleum deposits, but the state has lots of sand – and the right kind of sand.***


- Sandstone formations



## Industrial Sand Mines - May 2016



Total Number of Industrial Sand Facilities (Mines, Processing & Rail Loading)	<b>128</b>
Number of Active Facilities	<b>92</b>
Number of Inactive Facilities	<b>32</b>
Number of Facilities Reclaimed/In Process of Final Reclamation	<b>4</b>



# Locations of Sand Mines

- Are frac sand mines more commonly sited in rural towns without formal zoning than in those that undertook zoning before the frac sand boom?
- Findings
  - Significantly clustered in unzoned jurisdictions
  - Uncorrelated with land value, tax rate, or per capita income
  - Correlated with remoteness and zoning
  - Predicted mine count in unzoned towns was over two times higher than in zoned towns
  - However, the county with the most mines was under a county zoning ordinance
  - May indicate industry **preferences** for locations with **clear, homogenous rules** over patchwork regulation.
- Frac Sand Mines Are Preferentially Sited in Unzoned Rural Areas
  - Christina Locke
  - Department of Forest and Wildlife Ecology, University of Wisconsin-Madison
  - PLoS ONE 10(7): e0131386. doi:10.1371/journal.pone.0131386, 2015

# LOCAL GOVERNMENT TOOLS



# Reclamation

- Non-metallic mining: Reclamation permits (NR 135)
- Mandatory
- County level
- Reclamation plan is required for post-mining land use
- The reclamation permit is required before mining can begin
- NR 135 applies during site development because the removal of topsoil is addressed in NR 135 (.03 and .07)

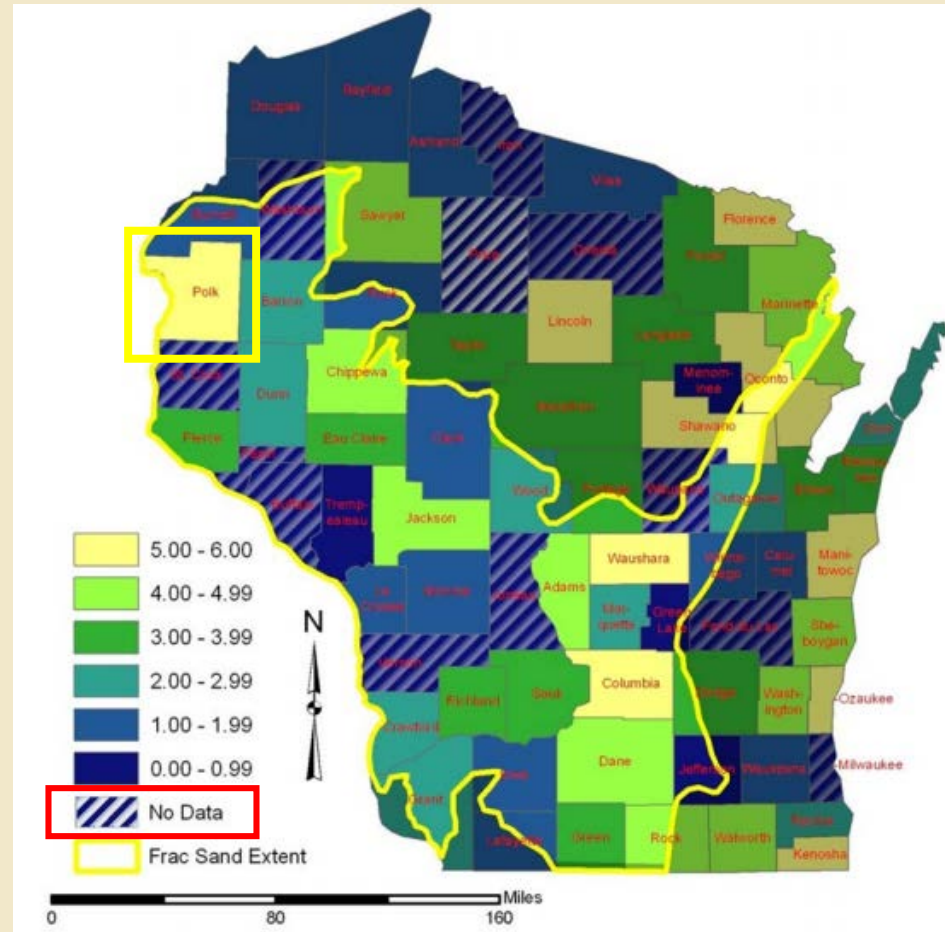


# Planning

- Comprehensive plan and/or amendment to plan
  - Provides guidance to decision makers
  - Zoning and other implementation tools should be consistent with plan
  - Mining addressed in natural resources element
- Contains
  - Maps and Data
  - Descriptive text
  - Goals, objectives and policies
- Many counties only address reclamation and provide a map of the non-metallic resources.

# Plan Example – Polk County

- Goals, objectives, and policies
  - Objective 2.304-A: Polk County shall continue to promote the **efficient utilization of mineral resources** in a manner which will lend itself to reclamation and **limit significant impact to the natural environment.**
  - Policy 2.304-A1: Polk County shall **require mining operations to submit permits** from state and federal regulatory agencies prior to, or concurrent with, final development approval.





# Regulatory Tools

The background image shows an industrial site, likely a mining or processing facility. In the foreground, there is a grassy slope. In the middle ground, there are large, conical piles of white material, possibly sand or a mineral byproduct. In the background, there is a large, complex structure under construction, possibly a processing plant or a large-scale storage facility. The sky is blue with scattered white clouds.

- Zoning
- Development moratoria
- Non-metallic mining ordinance - licensing

# Who has zoning?

## Counties

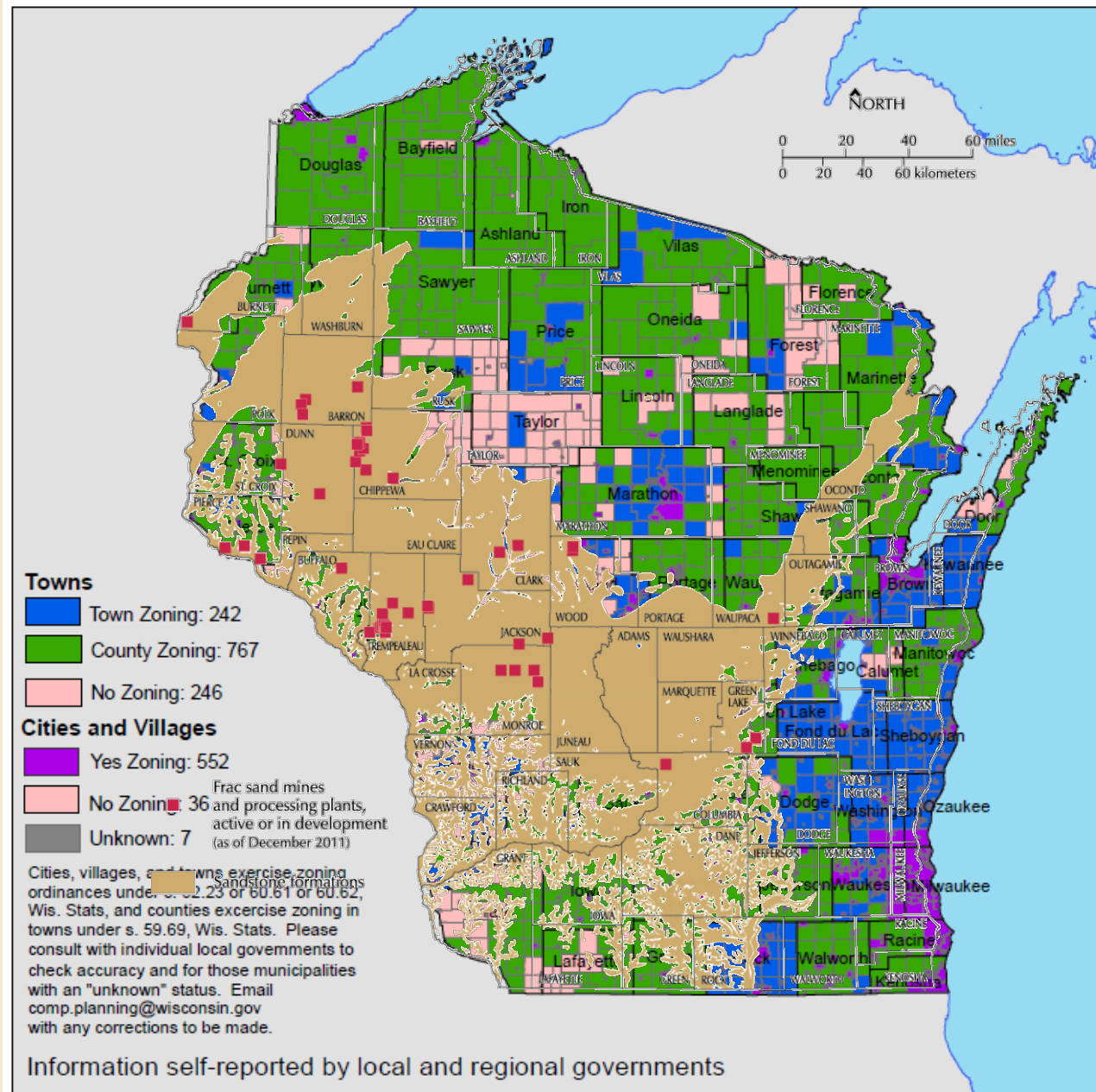
- Required to administer shoreland/wetland zoning
- May adopt general zoning in unincorporated areas

## Towns

- May adopt general zoning if no county zoning or after adoption of village powers
- May adopt shoreland zoning if more restrictive than the county

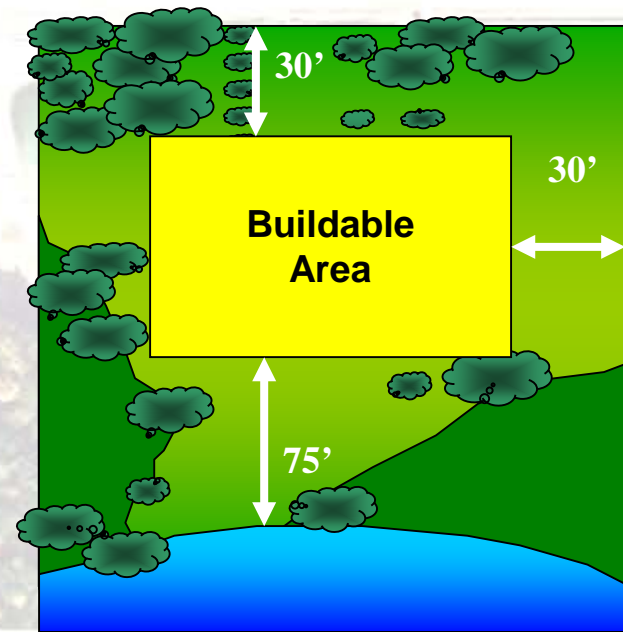
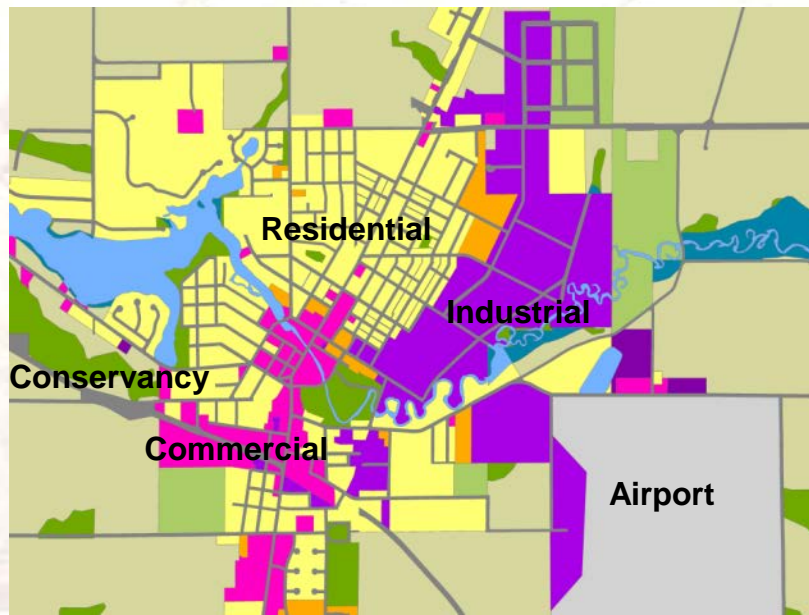
## Cities/Villages

- May adopt general zoning and extra-territorial zoning (applies 1.5-3 miles outside of boundaries)
- May have shoreland or floodplain zoning (required in some circumstances)



# What is Zoning?

- Zoning is the exercise of police power by a municipal government to regulate land uses
- A zoning ordinance contains 2 parts:
  - Map – divides the community into districts
  - Text – describes permitted uses and dimensional restrictions (i.e. lot size, density, setbacks, height, etc.)

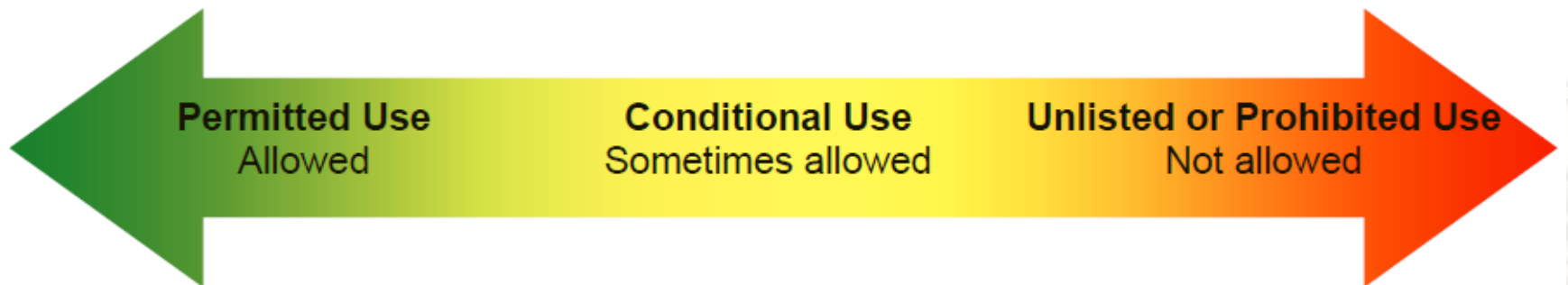


# Overlay Districts

- A district that lays on top of a base district like Agriculture and is subject to the stricter set of regulations
- Example: Eau Claire County
  - 18.34.001 Purpose.
  - Governs the extraction, processing, utilization and transport of nonmetallic resources and products
  - Ensures maximum protection to surrounding properties and the physical environment, protection for the public health, safety and general welfare, and to promote aesthetic values.
  - Created to protect mineral extraction operations against problems caused by incompatible land uses, and to allow for protection of deposits of minerals.

# Zoning – Text

1. **Permitted Use** – a use that is listed and allowed by right in all parts of a zoning district (granted by zoning administrator)
2. **Conditional Use** – a use that is listed for a district and may be allowed if suited to the location (decided by plan commission, zoning board or governing body)
3. **Unlisted or Prohibited Use** – a use that is expressly prohibited or not listed for the district is not allowed





# Zoning – Conditional Use Permits (CUPs)

- Discretionary decision – may be granted or denied
- Must be listed for the zoning district
- CUP standards listed in the ordinance
- Conditions may be attached
  - Conditions cannot be changed unless the permit is revoked or expires
  - OK to grant limited-term permits for temporary uses (i.e., gravel pit)
  - Otherwise, the permit runs with the property

# Conditional Use Permit

- Example: Eau Claire County
- Section 18.21.060 of the Eau Claire County Code.
- Those standards pertain to the following topics:
  - Conform with underlying zoning district
  - Takes into account neighboring properties
  - Adequate utilities, roads, parking, loading, etc.
  - Measures to prevent or control odors, fumes, dust, noise, vibration, and light
  - Soil conditions are adequate to accommodate the proposed use
  - Aim to eliminate traffic congestion or hazards from the proposed use

# Conditional Use Permit

- Example: Jackson County
- 17.29 INDUSTRIAL DISTRICTS.
  - M-2 INDUSTRIAL EXTRACTIVE DISTRICT.

Process for Unzoned and Zoned Towns

[http://www.co.jackson.wi.us/vertical/sites/%7B4C09F8F2-A8A2-4929-9E2A-A836851B00CC%7D/uploads/Non-metallic\\_Mineral\\_Mining\\_Information.pdf](http://www.co.jackson.wi.us/vertical/sites/%7B4C09F8F2-A8A2-4929-9E2A-A836851B00CC%7D/uploads/Non-metallic_Mineral_Mining_Information.pdf)

**Non-Metallic Mining Conditional Use Application**      Fee: \$300.00 0-10 acres  
\$400.00 10-100 acres  
\$600.00 100+ acres



**Zoning, Planning & POWTS Department**  
307 Main Street, Suite B03, Black River Falls WI 54615  
Ph: 715.284.0220 · Fax: 715.284.0238  
www.co.jackson.wi.us

The undersigned hereby petitions the Jackson County Zoning and Land Information Committee to allow for a special condition to a Jackson County Ordinance as follows:

<b>Applicant Information:</b>	
Owner's Name:	Applicant's Name:
Mailing Address:	Mailing Address:
City, State, Zip Code:	City, State, Zip Code:
Phone Number: (    )	Phone Number: (    )
<b>Legal Description:</b>	
<input type="checkbox"/> City of <input type="checkbox"/> Village of <input type="checkbox"/> Town of	Parcel Number:
% of the    % Section    , T    N, R    E / W	Subdivision Name:
CSM #                                  Lot #	Block #
Present Use:	Zoning District:
Present Improvements upon land:	
Proposed Use:	

**Complete the Plot Plan shown on the reverse side of this application.**

A Notice of your petition will be forwarded to the Town Board Officials. The Town will discuss your request and return a "Township Position" form. The Zoning and Land Information Committee will consider all input presented, which will aid in their decision. **You or your agents are required to attend the public hearing.**

Date:	Signature:
	Owner/Applicant/Agent

*For Zoning, Planning and POWTS Department Use:*

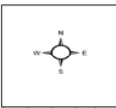
A Conditional Use Permit is requested as authorized by Sections:

**For:**

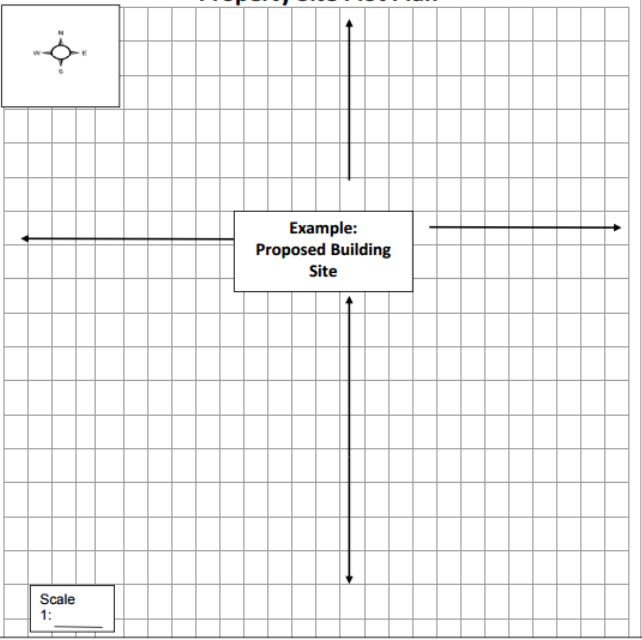
<b>Petition:</b>	<b>Notes:</b>
<input type="checkbox"/> Approved	
<input type="checkbox"/> Denied	
<input type="checkbox"/> Conditionally Approved	

**Non-Metallic Mining Conditional Use Application**      Fee: \$300.00 0-10 acres  
\$400.00 10-100 acres  
\$600.00 100+ acres

### Property Site Plot Plan



**Example:  
Proposed Building Site**



Scale 1: \_\_\_\_\_

**Items that MUST be shown on the plot plan:**

* Driveway location and distance from lot lines.	* Dimensions of the proposed structure.
* Distances from lot lines to the proposed driveway.	* Distances from lot lines to the proposed structure.
* Distance from centerline of road to proposed structure(s).	* Distance from well to the proposed structure.
* Distance from existing structure(s) to proposed structure.	* Distance from septic sys to proposed structure.
* Distance from any river, creek, stream, pond or lake to proposed structure(s).	

**Note:** Home site and driveway location MUST be flagged or staked prior to a scheduled public hearing site visit or onsite inspection with the Jackson County Zoning Committee and Jackson County Zoning Department.



# Development Moratoria

- Limit new land use development (or specific types of development) for a time certain in the County or in the specific Municipality.
- Acts as a “freeze” on land use development (or specific types of development)
- Provides legal land use control protection to allow for enactment of regulatory ordinances in the interim time period
- Must have a realistic timeline in the Ordinance for which the Moratorium applies. 1 year or less with a possible extension of time is considered adequate
- Example: Eau Claire County
  - An ordinance to impose a moratorium
    - on the expansion and creation of new nonmetallic mining operations
    - within the unincorporated areas of Eau Claire County

# Non-metallic mining licensing ordinance

- Not a zoning ordinance
  - It does not establish where a non-metallic mining operation may be sited
- Licensing ordinances may be supplemental to a zoning ordinance
- It may establish specific operational requirements, such as closure and reclamation, and license standards for the site and for related commercial or industrial operations off-site
- It may require existing operations to obtain a license and meet new requirements
- Licensing ordinances adopted by a town do not require county approval
- February 2012, the Wisconsin Supreme Court decided *Zwiefelhofer v. Town of Cooks Valley*



# Local Government Tools

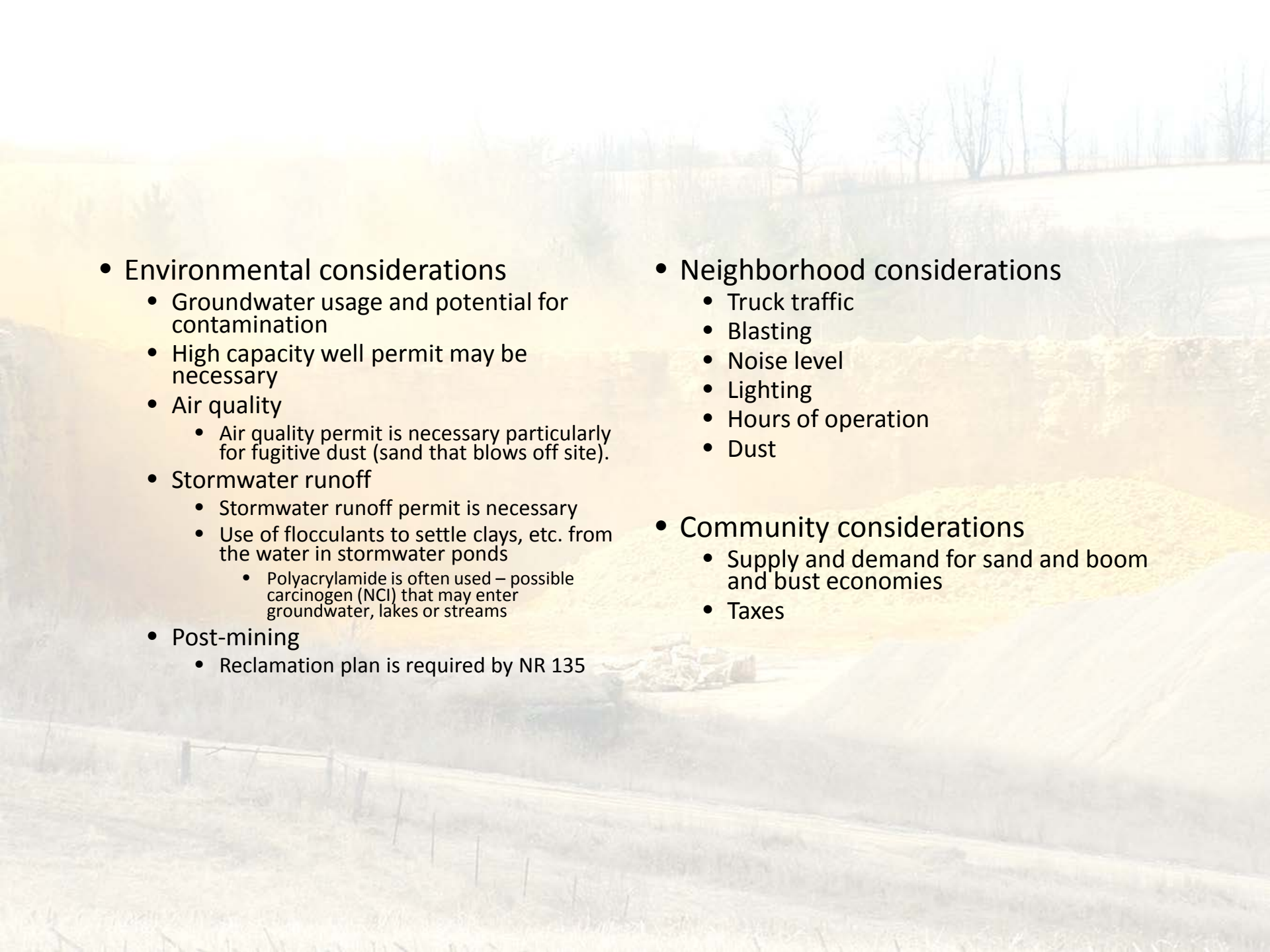


- Planning
- Zoning
- Development moratoria
- Non-metallic mining ordinance - licensing

# Questions?

- Contact info:

- Anna Haines, PhD
- Director and Extension Specialist
- Center for Land Use Education
- Professor
- College of Natural Resources,  
University of Wisconsin – Stevens  
Point
- [ahaines@uwsp.edu](mailto:ahaines@uwsp.edu)
- 715-346-2386



- Environmental considerations

- Groundwater usage and potential for contamination
- High capacity well permit may be necessary
- Air quality
  - Air quality permit is necessary particularly for fugitive dust (sand that blows off site).
- Stormwater runoff
  - Stormwater runoff permit is necessary
  - Use of flocculants to settle clays, etc. from the water in stormwater ponds
    - Polyacrylamide is often used – possible carcinogen (NCI) that may enter groundwater, lakes or streams
- Post-mining
  - Reclamation plan is required by NR 135

- Neighborhood considerations

- Truck traffic
- Blasting
- Noise level
- Lighting
- Hours of operation
- Dust

- Community considerations

- Supply and demand for sand and boom and bust economies
- Taxes

# Zoning Issues

# Issues/Questions

- What would be the best way for a town/county to keep its own identity?
  - Non-metallic mining issues?
    - Address in plan, map
  - Other land use issues?
    - What you want in the future and don't want, need to be clear, not wishy-washy, easy to be vague.

- What role does zoning play in heavy industry regulation?
  - Key role, designated only in particular areas, and many of those uses can be conditioned rather than permitted.
- From a legal and or land use standpoint, is there a difference between frac sand mining and the processing used to refine their product? i.e., can you regulate a processing facility and a mine site with the same set of regulations?
  - Conditional use standards can apply to many land uses, but most NMM ordinances list specific CU standards. I would treat mining and processing differently unless it occurs on the same site.
- What considerations apply when a mine spans jurisdictions, e.g., a village and town, or two different towns? Whose ordinances, zoning, etc. can be applied?
  - The most restrictive prevails.
  - For zoning see PC handbook, chapter 7, page 2, and for subdivisions, chapter 8, page 4.





- Can you prohibit a land use in a zoning ordinance, in a specific district, if it is in direct conflict with your comprehensive plan?
- Yes
  - Zoning ordinance would allow restrictions, but not the plan.
  - In a zoning code, usually only permitted and conditional uses are listed, all other uses are considered prohibited.
  - For example, single family rural residential district might list as permitted single family, agriculture, and home occupations as permitted, and conditional uses as duplex, church, park, but no prohibited uses, because all others are automatically prohibited.
  - In an agricultural district, the permitted uses often list agriculture, single family homes, for example, and a range of conditional uses depending on how restrictive the community wants to be. Nmm is sometimes a conditional use within this district, but does not need to be.
- Zoning allows the community to designate particular uses in the most appropriate areas. Towns do not need to designate areas as industrial, for example, if its history is residential and agriculture. However, the downside of zoning is rezoning. A landowner can request a rezoning, which could list a use as conditional which opens the door to potential development of that use. Spot zoning, chapter 7, page 10.

- Can you prohibit a land use in a license agreement?
  - No
- Does an existing mining operation have “grandfathered” rights that would exclude them from following a newly established licensing ordinance?
  - If it continues to function as it historically has, if the mine wants to expand, for example, new regulations can be brought to bear.

- How should a license ordinance and a zoning ordinance work together to regulate activities such as mining?
  - Many types of business licenses, in cities they are often used in conjunction with zoning. Zoning regulates where the use is appropriate, dimensions and density in a particular district, and places conditions if a conditional use whereas licensing regulates particular businesses and their day to day operations.
- Does zoning along with licensing ordinances carry any more legal or policing powers than one or the other alone?
  - With both, community gets more information about a particular business and how it operates along with the requisite responsibility to monitor and enforce both as well.

- Assuming the following scenarios, what is the best way for a town to protect itself from nonmetallic mining related issues if:
  - the town and county did not have any comprehensive zoning?
    - Moratoria, weigh options, zoning, licensing, other ordinances, conservation easements
  - the town did have comprehensive zoning and the county did not have comprehensive zoning?
    - Town makes the decisions and administers/monitors.
  - the town adopted the county's comprehensive zoning?
    - Towns within a county can have different zones as long as they are in the county's zoning ordinance. Portage County for example has done this.
  
- To Play the Game ... handout
- PC Handbook, Chapter 7, page 9
- WTA resources available:
  - Road use agreement
  - Highway weight limits
  - Developer's agreement
  - Blasting ordinance
  - Fees and forfeitures

# Zoning – Relief Mechanisms

1. **Map or Text Amendment (Rezoning)** – change to the zoning ordinance (adopted by governing body usually with advisory recommendation from plan commission)
2. **Variance** – allowed “violation” of an ordinance standard (decided by zoning board) (physical hardship)
3. **Appeal** – contested decision or interpretation of the zoning ordinance (decided by zoning board or circuit court)