

The Power of the Wind: A Michigan Story

Sarah Mills and Emily Palacios

MAP/MML Conference
September 21, 2018

Note: These slides
include only Sarah
Mills' portion of
the presentation.

The Game Plan

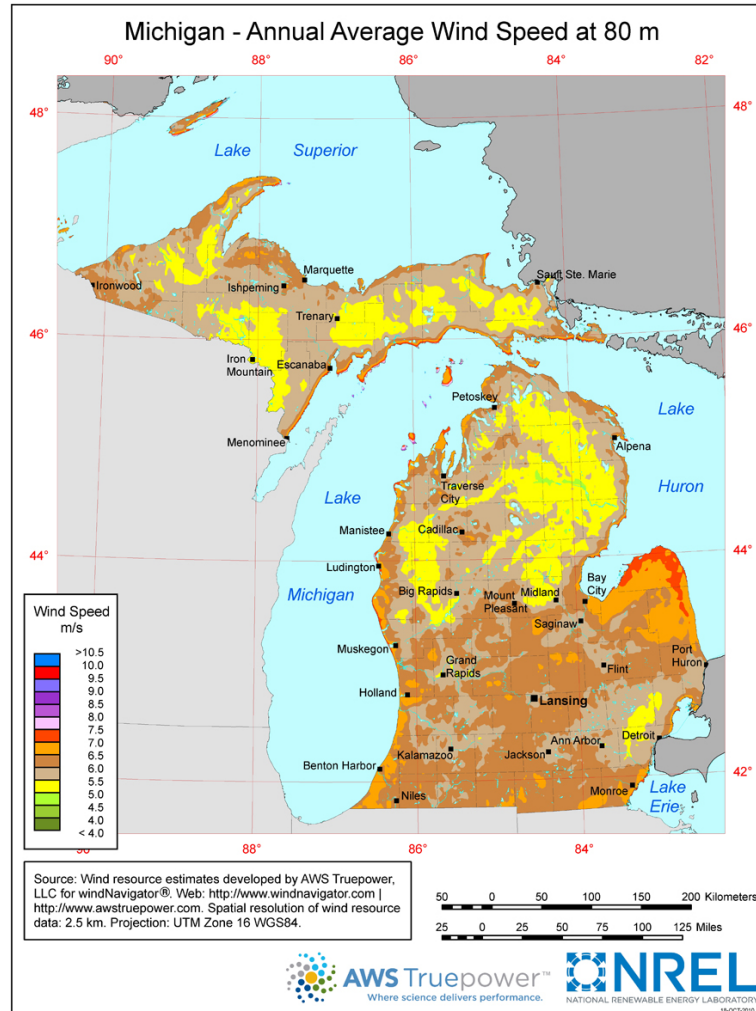
- Sarah Mills – University of Michigan
 - Who should plan for wind?
 - Myth/facts of benefits
 - Myth/facts of drawbacks
- Emily Palacios – Miller Canfield
 - Planning before zoning for wind
 - Zoning techniques and typical regulations
 - Legal considerations

Background on Sarah

- PhD in land use planning
 - Investigate claims of wind as farmland preservation tool
- Grant from C.S. Mott Foundation, taking lessons-learned from Michigan windfarms
 - Ensure future wind development respects local community values
- Extension-like “roadshow” around Michigan
 - Neutral broker
 - Provide state-based data

Who Should Plan for Wind? ...

MYTH: I don't need to plan for wind; it isn't windy enough



FACT

- Technology making wind development (and solar, too!) possible statewide
- Still limitations
 - Need open land
 - Grid access
- **If you are rural, you should plan**



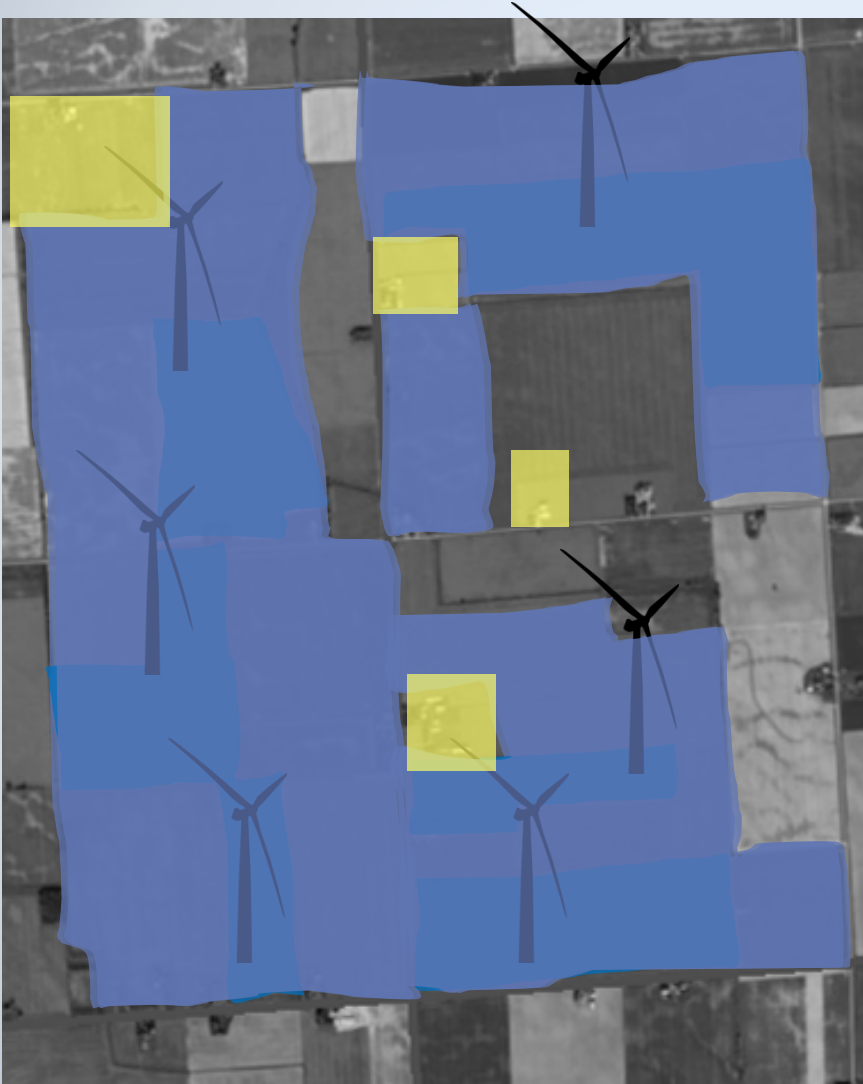
Myths & Facts about Wind Energy Benefits ...

MYTH: Only farmers benefit



Photo: JEFFREY M. SMITH, TIMES HERALD

Wind Development 101



- Zoning constraints
- Old Model: Winner takes all
 - Disturbance
 - Royalty
- Newer Model: Pooled Royalties
 - Usually per-acre
- Newest Model: Includes Ranchettes

Taxation of Wind Turbines

- Turbine value + easement (~\$2.1M)
 - x 100% in year 1
 - x 30% in year 10+
- ~\$20M per year statewide
- Huron County (just in 2015)
 - \$2.6M to townships
 - \$2.748 to county gov't
 - \$2.083 Million to ISD
 - \$2.074 Million to local schools

FACT

- Direct impacts on non-farmers completely depend on the business model
 - Winner-take-all not recommended (nor widely practiced)
- Indirect tax impacts benefit everyone
- Other broad financial impacts harder to quantify, but some impact
 - Jobs
 - Donations
- **Benefits extend well beyond farmers**

MYTH: Wind energy is the saving grace for my local school



Photo: <http://www.bharatsolarenergy.com/1183-wind-turbine-system-for-schools-green-en/details.html>

FACT

- Per Proposal A (1994), local school district general funds are redistributed on per-pupil basis
- Local districts keep sinking/debt fund revenues
- Some ISDs take on local-district services
- Some developers donate to local schools
- **The local school district may see little impact**

MYTH: Wind turbines will be great (or terrible) for our roads



Photo: <http://www.windtaskforce.org/profiles/blogs/clifton-maine-s-massive-wind-turbine-parts-begin-to-arrive-at>

FACT

- Most townships have put additional revenue towards road maintenance (but don't have to)
- County road commissions often require bonding for any damage done (but not all do)
- Some residents note increased traffic during windfarm construction, wind tourism
- **The impact on roads completely depends**

Myths & Facts about Wind Energy Drawbacks ...

MYTH: Wind turbines will reduce nearby property values



Photo: Ellen Creager, Detroit Free Press

FACT

- U.S. peer-reviewed studies say no impacts on home values
 - New study finds people self-sort into wind turbine communities
- In Michigan, 54% of landowners perceive a negative impact
- Assessors / realtors say farmland values may increase
- No specific home value studies in Michigan
- **Wind turbines probably don't decrease home/property values, but we just don't know for certain in Michigan**

MYTH: Wind turbines will make our community sick

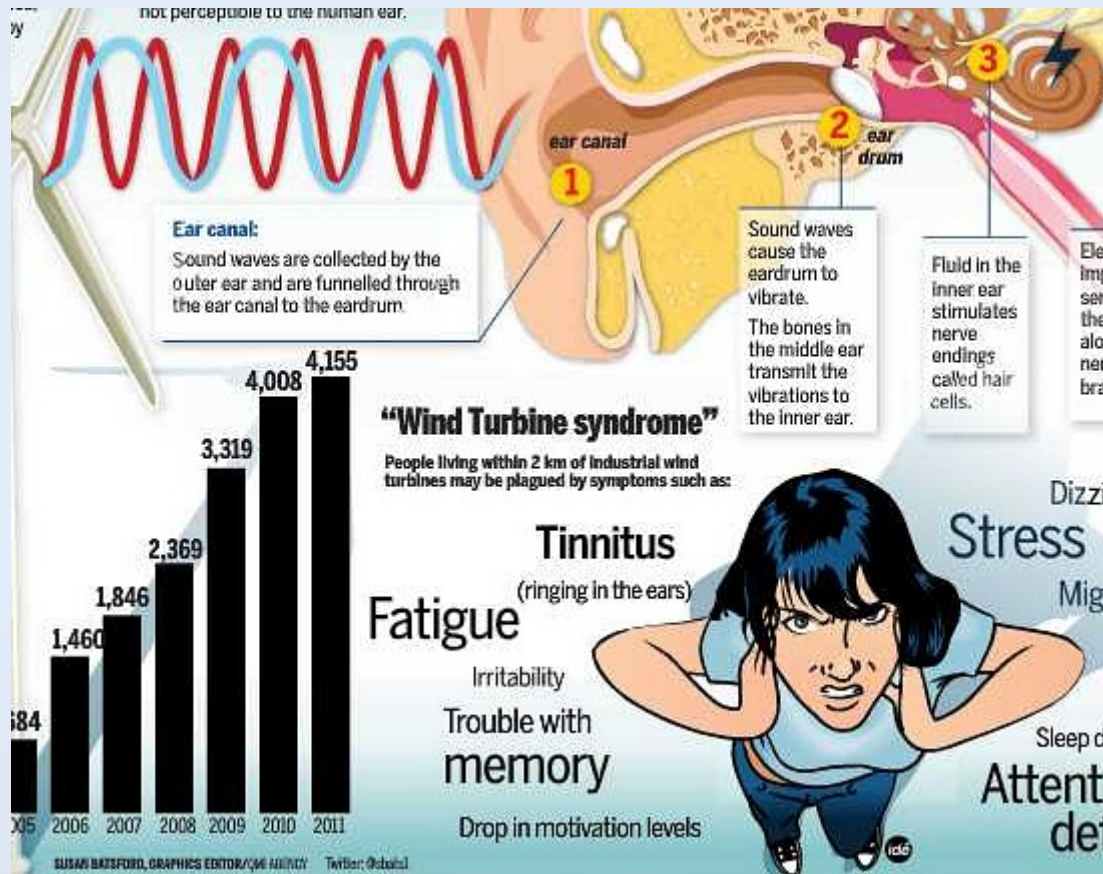


Photo: <https://www.windturbinesyndrome.com/2011/03/>

FACT

- Most peer-reviewed studies find no direct causal link
 - Research underway on annoyance/stress indirect links
- WHO standards on noise often cited, but not borne out in wind-specific research
- Research on flicker finds low risk; flicker can be managed
- In Michigan, 72% of landowners perceive no health impacts
- **Medical research says no direct health impacts; Sarah says inclusive, fair process may make project less stress-inducing**

MYTH: Building a windfarm will tear community apart



Photo: <https://www.cnn.com/2012/08/16/us/wind-farm-faa/index.html>

FACT

- 64% of landowners in MI windfarm townships said relationships with neighbors didn't change
 - 30% said relationships worsened
- Wind energy reopens right-to-farm fault lines
- **Whether or not windfarm is built, divisions will be evident. Proactively plan so discussion of active proposal isn't lengthened with simultaneously passing zoning.**

Questions?

Now or Later

Sarah Mills, Project Manager

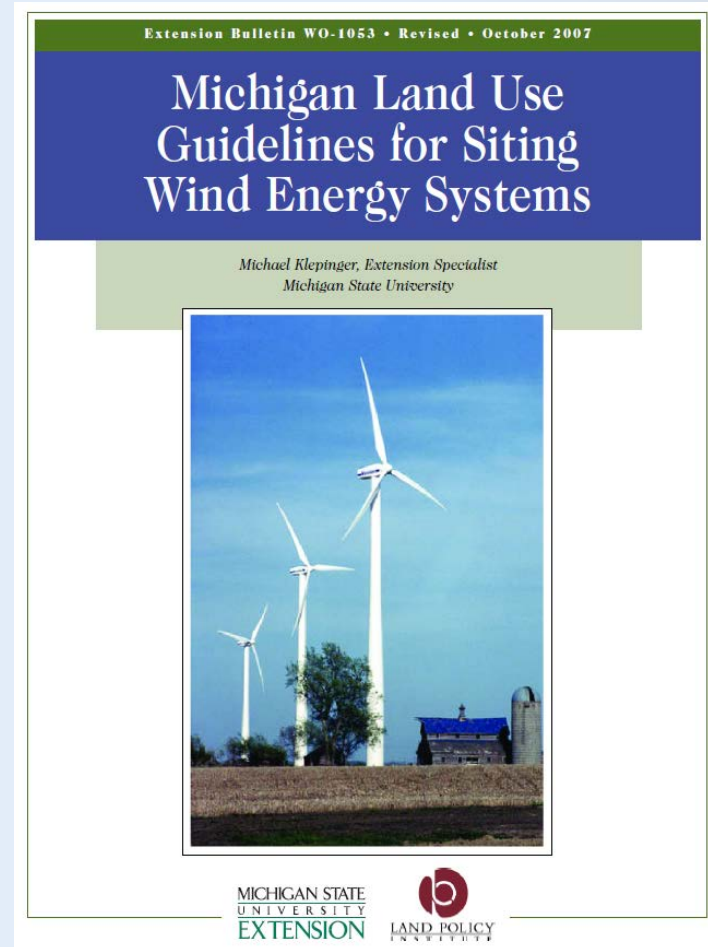
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Telling Myth from Fact

- Look for balanced, peer-reviewed sources
 - If it is entirely/mostly positive or negative, likely myth
- Reach out to Sarah or MSU Extension



Read More



- Conference handout on reputable sources
- Both available online: www.closup.umich.edu/wind

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