

# WEST ENERGY NEWS July 2010

"To educate and advocate for a clean, sustainable energy future for the Macatawa area."

[www.westmichiganenergy.org](http://www.westmichiganenergy.org)

## Climate Change in Michigan!

When scientists who track climate changes in Michigan gathered at a late April meeting in Lansing, it wasn't for a debate about whether climate was changing. It was to share facts about the change.

Rebecca Humphries, director of the Department of Natural Resources and Environment, cited two



Well documented changes: Rebecca Humphries (1) a 2 degrees Fahrenheit warming since 1980, focused in warmer winters and nights; and (2) milder winter temperatures lowering ice cover on the Great Lakes, followed by earlier spring warming.

Climate change maps show average changes, not evident in the zig-zags of day-to-day or year-to-year weather. It's that, when you chart the average temperatures over the last 30 years, the averages are rising.

Humans with easy access to heating and cooling systems may shrug off what seem like minor changes.

But public health officials like Lori Cameron of Michigan's Dept. Of Public Health, addressed the danger that extreme heat events combined with air pollution can hurt elders, people with asthma and sick people without air conditioning (read 'poor people').

## CRITTERS CAN'T TURN ON COLD AIR

Animals, fish, and birds can't turn on heating and cooling systems or buy food.

Resident animals like opossums and chipmunks are moving northward, say MSU scientists.

Purdue scientists are studying the impact of warmer spring waters on the larva of yellow perch (good for fishing) and alewives (food for salmon and trout). Loss of the larva would drastically affect Lake Michigan fishing, and consequently, its tourist industry.



Warblers migrating further north need food sources along their pathways and forest mixes that match their needs. One study estimates that two-thirds of Michigan's warblers could die from lack of the right food.

## SO: WHAT'S HOPEFUL? ADAPTATION! and cutting back on GHGs!

With warmer winters, more kinds of wine grapes can be grown, so vineyards are multiplying in West Michigan. Grapes and all other plants are likely to need more water. But cheaper transport for agricultural and other commodities by water might be available longer in the year, said farm economist Bruce McCarl.

McCarl calls for adaptation along with mitigation through lower use of fossil-fuels. Research in timing for planting as well as pest and heat resistance will be essential, he said. Looks like a good future for creative innovators!

Information from: Climate Change in Michigan:

Vulnerabilities and opportunities, MSU, Lansing

& [www.purdue.edu](http://www.purdue.edu) (fish) [www.climatehotmap.org](http://www.climatehotmap.org) (warblers)



## WEST Says YES to

ideas for energy efficiency, conservation, sustainability, and significant lowering of energy production, making a difference locally with seven future generations in mind.

WEST meets to discuss current issues and responses on 4<sup>th</sup> Tuesdays  
July 20, Aug. 24 meetings at  
Solar Century  
486B Century Lane  
Holland  
All welcome!!!

Co-chairs:  
Don Triezenberg and Sara Leeland  
Treasurer: Russ Packard  
Founders: Marty Dugan & John Fulenwider  
Facebook editor: Sylvia Avsharian  
News editor: Sara Leeland

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## JOIN US ON TUESDAY JULY 20<sup>TH</sup>

- \* Updates on energy action in the Holland area
- \* Asking the questions YOU have about our West Michigan energy future
- \* And the climate-change questions you hear!

Solar Century  
486B Century Lane  
Holland  
7 - 8:30 pm



## ANSWERS TO CLAIMS BY CLIMATE-CHANGE SKEPTICS #1

Q.. Aren't you aware that climate ALWAYS goes in cycles? Current changes are natural, not human induced. And species have always adapted

A. Yes, climate has changed for natural reasons. A temperature change now possible by 2100 ( 5 degrees C.) happened 240 million years ago. It extinguished about 95% of the planet's then-existing species. Humans weren't here for that event; no human civilization has survived that amount of climate change.

Scientists have tracked 800,000 years of the correspondence between temperatures and CO2 levels by examining Antarctic ice cores. We know that CO2 trapped in the atmosphere causes heating.

The rise in atmospheric carbon levels coincides with the mining and burning of fossil fuels that had previously been buried for millions of years. Plotted on the same graph as the move out of the last ice age (12,000 years ago), the industrial era warming looks like a vertical line.

Sources: Responses to Questions on Climate Change by B. Parris, PhD, chief economist at the Climate and Natural Resources team, Australia; and *Climate Change, picturing the Science*, by G. Schmidt and J. Wolfe.



Take your head out of the sand and look around!