

# Gone With the Wind

## Wind Turbine Sales Pitch on Spin Cycle

## LETTER TO THE EDITOR

**By Sandra Traywick**

**T**oday I would like to share my research on PFAS and Wind Turbines contamination risks that I believe warrants not only a moratorium on wind turbines, but **a complete ban and overhaul of the entire program until further research by unbiased sources has been conducted.**

Yesterday I emailed my commissioners the EPA's new "PFAS strategic roadmap" document as well as a video of the last Ground Water Management meeting where we shared our concerns about BPA, Microplastics, and potential PFAS contamination of the Equus Beds from leading edge erosion of wind turbine blades.

At the time, I was more concerned about the research on BPA's in the resin shed from wind turbines, hydraulic fluid, concrete, drilling, and vibration issues disturbing the aquifer, but I recently discovered the following information in a Pub Med research publication.

**“In the energy sector, PFAS are known to be employed in solar collectors and photovoltaic cells, and in lithium-ion, vanadium redox, and zinc batteries. In addition, fluoropolymers are also used to coat the blades of wind mills.**

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7784712/>

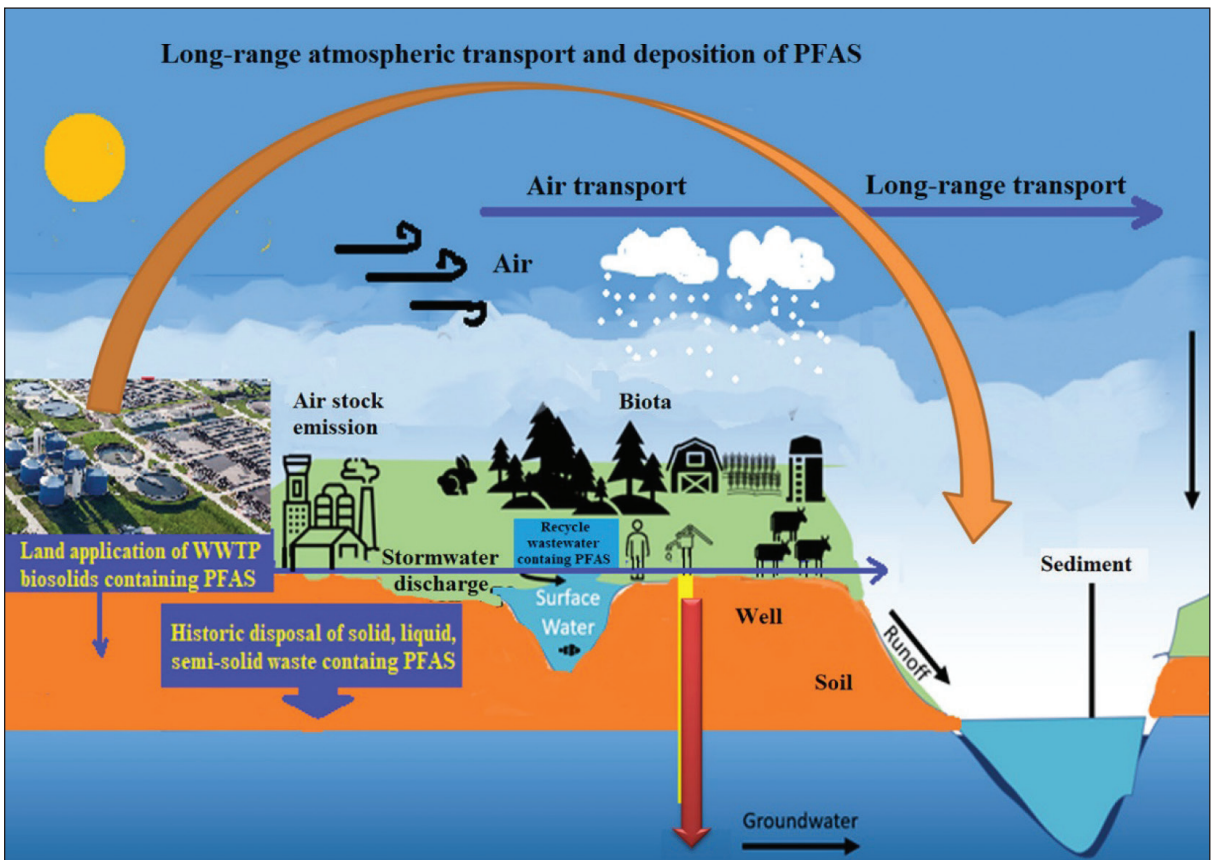
In further research I found that this is a bragging point, that the protective COATING is key, and is continually upgraded as it degrades. Remember, according to research, the COATING of the wind blades is the part containing PFAS.

(This document also stated that PFAS are in Hydraulic Fluid. Please refer to the active wind turbines in Oklahoma currently leaking hydraulic fluid etc. down the sides.)

The research stated that this is patented information. That means the exact percentage of PFAS used in the coating of Wind turbines is unknown, due to company patents, and they don't have to tell you about their usage.

The question is, are we willing to risk the water supply (not to mention the air quality) for half a million people based on an unknown company secret?

The EPA has not yet determined an acceptable enforceable amount of PFAS for water. Yet.



This photo shows some of the KNOWN ways that PFAS enters the environment and the air and water. Apparently, they haven't added the data from studies showing wind turbine blades coated with PFAS...due to the patent protections.

<https://www.sciencedirect.com/science/article/pii/S0048969721060812>

This diagram shows that PFAS “occurrence far from the potential sources suggests that long-range atmospheric transport is an important pathway of PFAS distribution.”

Individual states are already implementing  
contaminant levels.

Vermont Water Supply Rule was adopted to establish a Maximum Contaminant Level (MCL) as well as routine public drinking water monitoring frequencies for PFAS. **The MCL is 20 nanograms per liter (ng/L) and it is for five PFAS in drinking water:** PFOA (perfluorooctanoic acid), PFOS (perfluorooctane sulfonic acid), PFHxS (perfluorohexane sulfonic acid), PFHpA (perfluoroheptanoic acid), PFNA (perfluorononanoic acid). The sum of these five PFAS cannot exceed 20 ng/L.

**1 nanogram per liter (ng/L) is equal to 1 part per trillion (ppt).**

Research from the Turbine Group showed that the blades of a 4.2MW turbine could emit 62 kilos of material annually. This was ridiculed by the developer of the Viking Energy wind farm, which base its own calculation of 150 grams per turbine per year on a data sheet provided by manufacturer Vestas and made available through the Norwegian wind energy association NORWEA. <https://www.shetnews.co.uk/2021/12/22/row-over-microplastics-from-wind-turbines-rumbles-on/>

Based on the photos of wind turbine blade erosion and the eye witness accounts of farmers who hate the turbines due to the chunks of fiberglass they throw all over their fields, I would personally trust the research of the Turbine Group, however, in order to be fair to the wind developer, lets assume that they're right and each turbine only emits 150 grams per year.

PFAS are called Forever Chemicals for good reason, they last FOREVER. Farmers in Maine, Michigan, Illinois, New Mexico, and around the world are discovering the error of trusting in the government's assurances that free biosludge was safe. Now their farms are ruined, contaminated with PFAS and "only fit for wind turbines or solar."

The funny thing about PFAS is that it is

bioaccumulative. It disperses in water, air, and soil, and is taken up into our plants (including wheat and corn etc.), and then ends up in our deer, beef, milk, and our own blood, causing a myriad of health issues.

And it last for around 4,000 years.

**If we assume the 150 grams shed per turbine per year is correct, like the developer has stated, and assume this patented formula only contains 50% PFAS contaminants, that would mean only 75 grams of PFAS FOREVER CHEMICALS are shed from each wind turbine over our aquifers, into our land, and into the air we breathe, per turbine. Per year.**

**Let's go back to the Vermont standards for maximum contamination of water.**

**1 nanogram per liter (ng/L) is equal to 1 part per trillion (ppt).**

**A Maximum Contaminant Level (MCL) is 20 nanograms per liter (ng/L).**

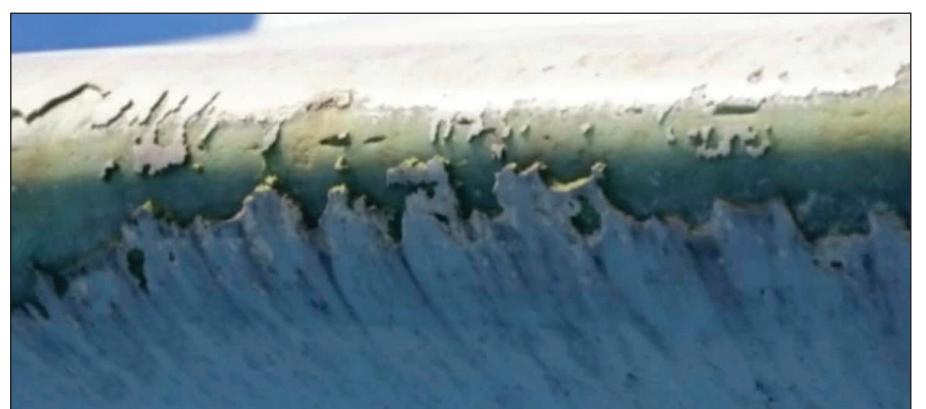
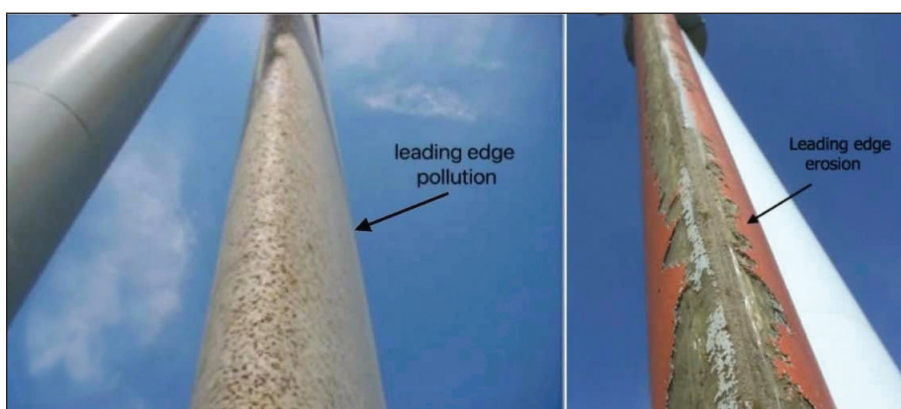
**That means 1 gram of contaminated PFAS wind turbine blade material contains 1,000,000,000 nanograms. (That's one TRILLION nanograms.)**

**So 75 grams of PFAS would equal 75 TRILLION nanograms.**

**And 75 TRILLION nanograms is enough to contaminate...a whole lot of water.**

***And it NEVER goes away. That means every single year, each turbine would be shedding, conservatively, 75 trillion nanograms of PFAS into the soil, water, and air around them, and accumulating each year.***

Whether we go with the figure from the actual research group stating that wind turbines shed only 150 grams of wind turbine coating







material KNOWN TO CONTAIN PFAS according to the research, or whether we go with the research from the Norway group stating the actual number is closer to 62 kilos per year....

It's bad.

And in my humble opinion, you'd be a fool to allow these anywhere NEAR your property, your community, your water, or your state.

Unless, of course, you like the idea of the EPA knocking on your door in a few years holding you accountable for PFAS contamination of the soil, air, water, and health of an entire community.

***Because, according to the EPA, underserved rural communities are the ones who will be facing the most contamination.***

***By ommitting (whether intentionally***

***or unintentionally) this critical information from their wind turbine sales pitch, they have put our State, our water, our health, and the very air we breathe at grave risk.***

In conclusion, I'd like to leave you with a quote from the Water Management Board when we attended their meeting last week to share our concerns.

***"Maybe if groups like ours had been around when they were drilling for oil and gas, we wouldn't have the issues with water contamination that we do now."***

P.S. Please have this research confirmed by a qualified unbiased environmental expert and correct as needed. I'm just a mom of two immune compromised kids, on a mission to protect them and every other child from

suffering the same fate.

Sincerely,  
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Sources:

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