

Episode 56ET June 5, 2023. Worst case scenarios: “Debt Limit Raise rules could streamline permits for polluting (wood burning) or “studies” might delay permits for a new electric grid.”

United States

<https://www.nytimes.com/2023/06/02/climate/permitting-reform-debt-ceiling.html>

The New York Times, June 2, 2023.

The debt limit deal and climate action

President Biden and Congress have wrangled a big political deal to raise the country’s debt ceiling.

Excerpts edited by RAWSEP for brevity and clarity, and relationship to Residents Against Wood Smoke Emission Particulates.

Tucked into that (debt ceiling) deal are changes to how government approves new projects that bear on the country’s climate goals. (The changes) could affect how quickly the United States cleans up its climate pollution. A way to get big things done. Permitting reform refers to efforts to change the rules, including those under the National Environmental Policy Act (N E P A,) that govern how, and how quickly, federal agencies authorize big projects. That could be a big solar array on federal lands, or transmission lines that can go through many state and city jurisdictions. Those who want to build projects have to first detail the environmental impacts, and they have to seek public input. It’s democracy. So, would renewable energy projects be built faster? That’s unclear. One section of the bill is designed to speed up energy projects of all kinds, **polluting or not**, by designating a lead agency to oversee environmental reviews and requiring that they are **completed in one to two years**. In theory, that could **speed up oil and gas projects as well as renewables** (all of which might increase, not decrease, pollution, especially in the case of biomass (wood) burning plants currently still labeled “renewable”). But those deadlines could prove tough to enforce, and some experts say those changes would have only a modest impact. **Most significantly, the bill leaves unsettled whether the permitting of new transmission lines will be accelerated. Democrats had floated a proposal to encourage new transmission lines that would connect different parts of the country but that was stripped out. Instead, the bill mandates that the issue be studied.** So, the debt ceiling deal may **end up delaying efforts to modernize the grid.** The Biden administration’s ability to show the world that it is serious about taking climate action rests not only on its bold promises to reduce its greenhouse gas emissions but also on its ability to keep its promises. Without grid modernization, that could prove extremely difficult. Nature. The cancer-causing potential of fine particulates (PM2.5) highlights the inextricable link between air quality and human health.

United States

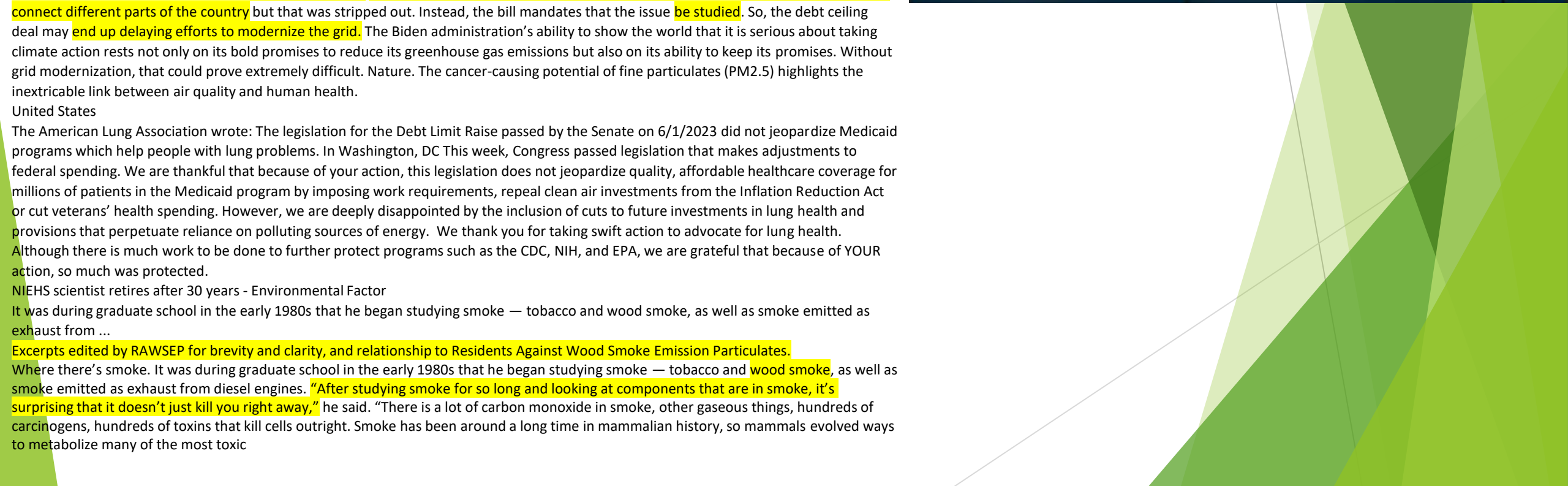
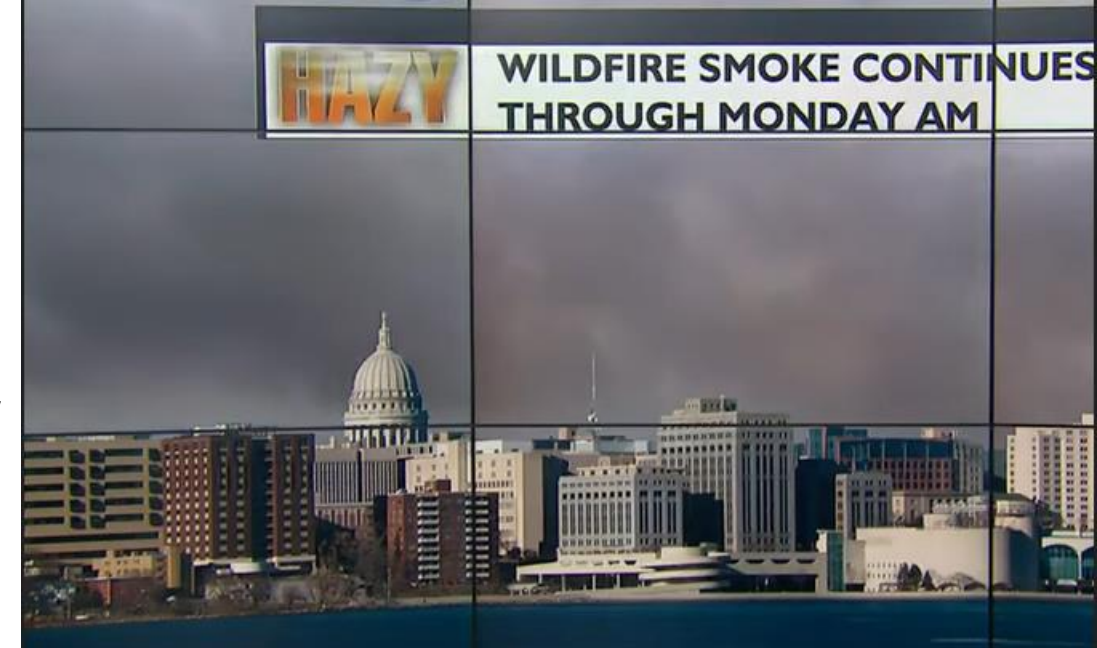
The American Lung Association wrote: The legislation for the Debt Limit Raise passed by the Senate on 6/1/2023 did not jeopardize Medicaid programs which help people with lung problems. In Washington, DC This week, Congress passed legislation that makes adjustments to federal spending. We are thankful that because of your action, this legislation does not jeopardize quality, affordable healthcare coverage for millions of patients in the Medicaid program by imposing work requirements, repeal clean air investments from the Inflation Reduction Act or cut veterans’ health spending. However, we are deeply disappointed by the inclusion of cuts to future investments in lung health and provisions that perpetuate reliance on polluting sources of energy. We thank you for taking swift action to advocate for lung health. Although there is much work to be done to further protect programs such as the CDC, NIH, and EPA, we are grateful that because of YOUR action, so much was protected.

NIEHS scientist retires after 30 years - Environmental Factor

It was during graduate school in the early 1980s that he began studying smoke — tobacco and wood smoke, as well as smoke emitted as exhaust from ...

Excerpts edited by RAWSEP for brevity and clarity, and relationship to Residents Against Wood Smoke Emission Particulates.

Where there’s smoke. It was during graduate school in the early 1980s that he began studying smoke — tobacco and **wood smoke**, as well as smoke emitted as exhaust from diesel engines. **“After studying smoke for so long and looking at components that are in smoke, it’s surprising that it doesn’t just kill you right away,”** he said. “There is a lot of carbon monoxide in smoke, other gaseous things, hundreds of carcinogens, hundreds of toxins that kill cells outright. Smoke has been around a long time in mammalian history, so mammals evolved ways to metabolize many of the most toxic



chemicals, which is presumably why we can tolerate it to some extent.” Investigating human variability in metabolism has been a major theme in Bell’s research over the years. Arizona

[Mulch fire smoke moving toward Gilbert, Chandler as fire continues to burn - AZCentral](#)

AZCentral

All PM-2.5 (smoke) monitors within the Phoenix Valley yesterday were in the Good AQI category for the 24-hour average, which is what the EPA ...

[State issues pollution health warning for Friday | The Daily Independent at YourValley.net](#)

YourValley.net

Also, wood burning fireplaces, outdoor fire pits and similar outdoor fires are prohibited in Maricopa County. Subscribers make this story possible.

Connecticut

[Smoke from Canada wildfires will again cause hazy skies in CT today, weather service says](#)

NewsTimes

"Hazy skies, reduced visibility, and the odor of burning wood is very likely as the smoke plumes are transported over the region," the EPA said.

Illinois

[Illinois issues air quality alert for Friday - The Pantagraph](#)

The Pantagraph

... of particulate matter (PM) between 2.5 and 10 micrometers in the air. The higher the amount of particulate matter, the dirtier the quality of ...

Massachusetts, Boston

[Five things, plus BIO in Boston, Cliff Diving and Smoke pollution - The Business Journals](#)

The Business Journals

The particulates you're breathing aren't just from wood burning — there are all kinds of carcinogens and bad stuff in the air. And let's face it: It's ...

Michigan

[Michigan wildfire that's burned more than 3 square miles was sparked by campfire on private land](#)

wjfw.com

On Saturday, the wildfire pushed west and southwest, burning through ... Heavy smoke from the fire prompted the closure of Interstate 75 from ..

[Open burning banned in 3 Lapeer County townships due to extremely dry conditions](#)

MLive.com

Cooking fires cannot be larger than 3 feet-by-3 feet, must be contained within a portable or stationary wood-burning unit that is surrounded on ...

Minnesota

[Air quality alert issued with very warm temps into Monday, then cooler; | MPR News](#)

MPR News

This alert is for a combination of smoke and ozone. ... to air pollution, such as outdoor burning, and use of residential wood burning devices.

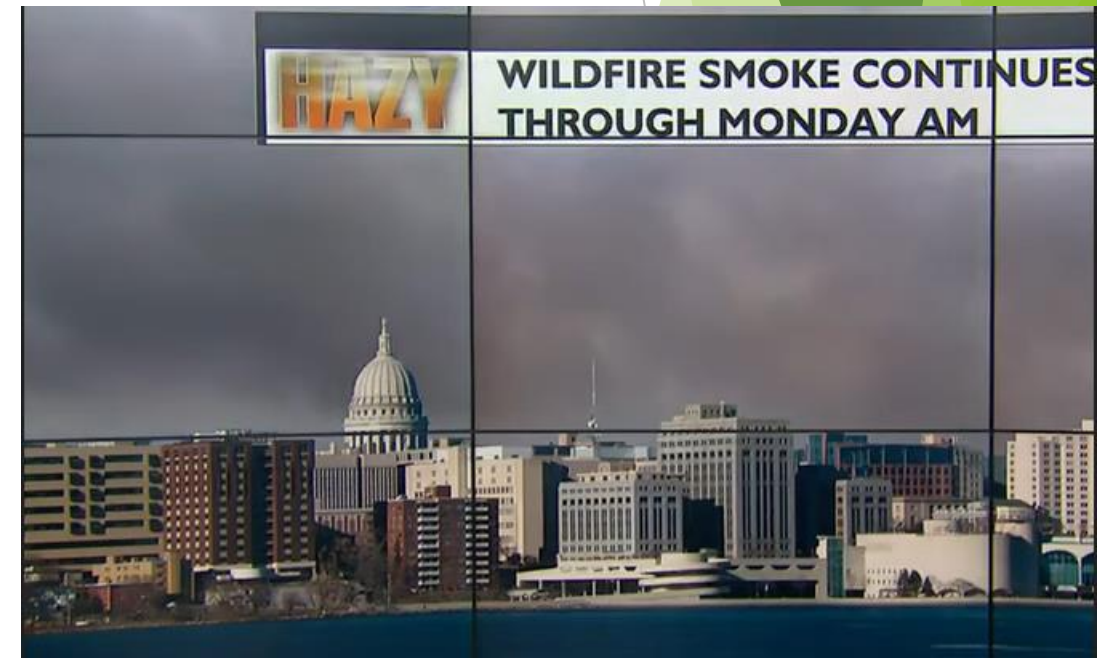
New York

[Air Quality Health Advisory Issued for Long Island, New York City Metro, and Western New ...](#)

New York State Department of Health

Additional information on ozone and PM 2.5 is available on DEC's website and on DOH's website (leaves DEC website).

[New York issues air quality advisory for NYC area, Long Island, Western NY on Friday - Lohud](#)



Lohud

Reduce or stop outdoor burning and attempt to minimize indoor sources of PM 2.5, or fine particulate matter, such as smoking. For more information, ...

North Carolina

[Smoke from Nova Scotia wildfires impacting NC air quality - WXII 12](#)

WXII 12

Code yellow for PM 2.5- fine particulate matter of 2.5 micrometers or less in diameter- poses a greater health risk because the particles can be ...

[In Robeson County, asthma rates are twice the state average -- worsened by air pollution](#)

NC Newsline

PM 2.5 – particulate matter smaller than the width of a human hair – burrows into the lungs and invades the bloodstream. Chronic exposure can increase

Oregon, Deschutes County

[Commissioners to consider plan to address health and safety concerns on County-owned property](#)

Deschutes County

... on-site waste disposal, access, and wood-burning apparatuses as well as solid waste on County-owned property located in north Juniper Ridge.

Washington, Vashon

[Wildfire smoke is here for the summer | Vashon-Maury Island Beachcomber](#)

Vashon Beachcomber

The smallest particulate matter (known as PM 2.5) can even enter the bloodstream. The people at greatest risk of negative health effects from ...

Washington, DC

[Why Is The Air Quality So Bad? Weather And Health Experts Explain | DCist](#)

DCist

“The primary ingredients for any of these codes are the PM 2.5, which is particulate matter, things like smoke, dust, other sorts of emissions ...

June 2, 2023.

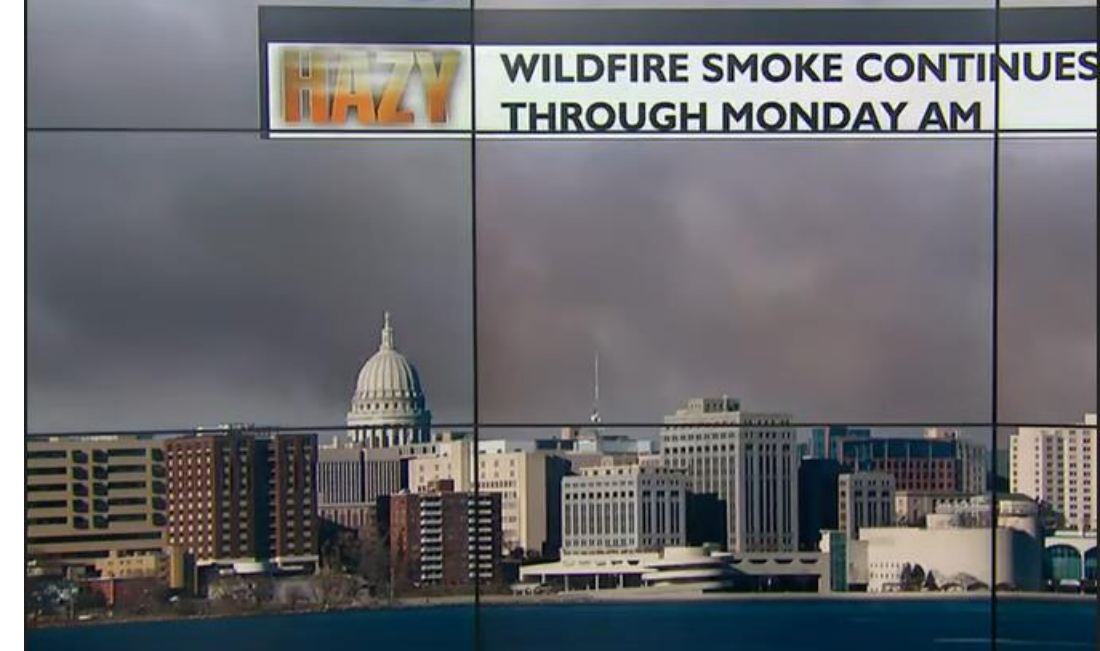
[Why Is The Air Quality So Bad? Weather And Health Experts Explain](#)

Excerpts edited by RAWSEP for brevity and clarity, and relationship to Residents Against Wood Smoke Emission Particulates.

The Washington monument was clouded in haziness yesterday after Code Orange levels of air quality.

Washington Monument EarthCam Webcam.

Heat and haziness are hanging over the city. The National Weather Service has issued [a Code Orange](#) alert for air quality across the D.C. region. The Bass River Fire in New Jersey added smoke to the air, according to [Capital Weather Gang](#). Smoke can travel a long way: we’ve recently been impacted by wildfires in Nova Scotia and Alberta. “[The New Jersey fire] sent a plume into the city that lowered visibility to a few miles at one point late yesterday. There is also some remnant smoke from Nova Scotia that has been sitting around in recent days. Air quality is determined using the Air Quality Index (AQI) on [AirNow.gov](#). Both yesterday and today, the air quality in the region is Code Orange which sits in the AQI’s middle range. The National Weather Service recommends minimizing strenuous activity or exercise outdoors. In Washington DC [the first Code Red since 2012](#) was declared in 2018, with multiple Code Reds declared since then. “The primary ingredients for any of these codes are the PM 2.5, which is particulate matter, things like smoke, dust, and other sorts of emissions from burned fossil fuels (and other burned fuels).” It’s pretty uncommon to see air pollution that high early in the spring. In the 1980s and 90s, D.C. could average 30 Code Orange days, or higher, a year because there were a lot of factories contributing to air pollution around the Mid-Atlantic. Air pollution doesn’t impact D.C. residents equally. [Black residents in D.C.](#) are disproportionately impacted by poor air quality, despite overall improvements in the region. Air quality can vary from neighborhood to neighborhood. Air pollutant size is what dictates their impact on your body. “[Fine particulate matter] particles enter the respiratory tract and can cause inflammation and irritation in the



lungs.” Fine particulate matter – (PM2.5) particles that are 2.5 micrometers is one of the most concerning types of air pollutants. [The sources](#) include the burning of gas, oil, diesel fuel, and **wood**. “These pollutants can cause breathing complications, including worsening the severity and frequency of asthma attacks, With chronic exposure, these particles can also decrease lung function and capacity.” [Ultra-fine particulate matter](#) can be worse since they’re small enough to enter the bloodstream, and with chronic exposure, these particles can increase the risk of heart attacks and strokes. Sources of ultra-fine particles that impact us the most include [vehicle exhaust, factory emissions, and controlled burns](#). “Fine particulate matter, a main air pollutant, is small enough that it can travel farther in the airway and tends to cause respiratory symptoms in the lower airway – such as shortness of breath from inflammation in the lungs,” Check air quality levels, limit time outdoors and wear an N95 mask for high air pollution levels, set up a portable air cleaner or air filter at home, and limit pets from going outdoors when air pollution levels are high.

Canada

[Camping during fire season? Here's some things you should know - CTV News](#)

CTV News

Items not allowed in national parks during a ban include charcoal briquettes, turkey fryers, tiki torches and outdoor wood-burning stoves ...

Canada, British Columbia, Kamloops

[Firefighters battling Halifax wildfire among those who lost homes in disaster | CFJC Today Kamloops](#)

CFJC Today Kamloops

A bone-dry April and May left the woods behind the homes like a tinder keg, ... The smell of the smoke shifted from burning wood to nauseous, ...

HALIFAX — As a volunteer firefighter battled eye-stinging smoke and flying embers to save homes from the Halifax wildfire, he realized its flames were headed to a neighbouring subdivision — and his own residence.

Firefighters battling Halifax wildfire among those who lost homes in disaster.

Jun 1, 2023.

HALIFAX — As volunteer firefighter Mark Zawidzki battled eye-stinging smoke and flying embers to save homes from the Halifax wildfire, he realized its flames were headed to a neighbouring subdivision — and his own residence.

But he kept working.

Excerpts edited by RAWSEP for brevity and clarity, and relationship to Residents Against Wood Smoke Emission Particulates.

“It was important to stay with my crew and work on the assignments we were given,” the 50-year-old said. “The fire was raging at such an incredible pace that I just wanted to save somebody else’s house while I could.” As the winds shifted, he took a minute to text his wife and post on a Facebook group in the Highland Park subdivision where the flames were heading, before continuing to lead his team in the community of Westwood. Within hours, his residence on Carmel Crescent was gone, along with those of many of his neighbours, including two full-time firefighters he counts as friends. In his 13 years of volunteering at the station in Hammonds Plains, the firefighter— a civilian employee of the Defense Department, had seen brush fires, but he said the wildfire that began Sunday afternoon was a “completely different beast.” The City of Halifax has said that in coming days at least 151 homeowners will be officially informed of the damage to their residences and, when it is safe, be permitted to visit the scenes of destruction. With contractors in short supply, it could take two or three years to rebuild. He’s not sure if that’s the best option. He wonders about how soon potable water can be re-established because of possible contamination. He won’t give up volunteering as a firefighter. “I hope to continue, but it may not be at this station,” he said.

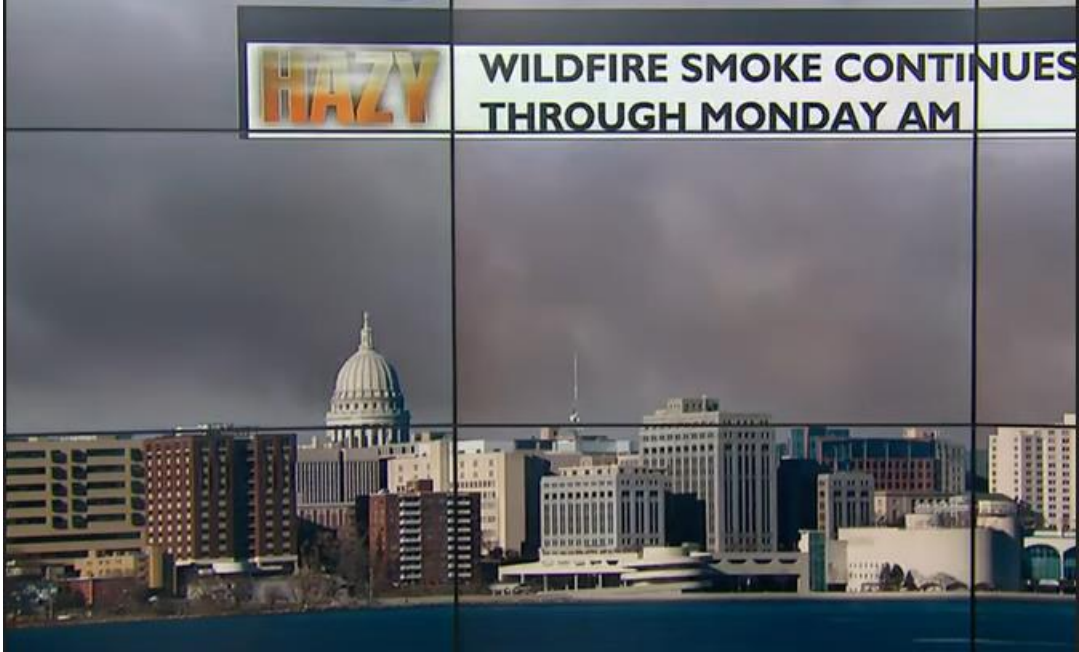
Canada, Nova Scotia

[Thousands evacuated as wildfire smoke fills sky in Nova Scotia - WNCT](#)

WNCT

Footage captured by an evacuated resident shows colossal smoke clouds billow from the Tantallon fire in Hammonds Plains on Sunday.

Over 16,000 residents in Nova Scotia were under evacuation orders on Tuesday, May 30, as a large wildfire burned in the region, officials said.



[Poor air quality remains as Nova Scotia wildfires continue to burn: officials](#)

Yahoo News Canada

“Last week we actually got smoke from the Alberta fires that came through the jet ... It is more worrisome that it's not just wood that's burning. Officials said the wildfire in the Pubnico-Argyle area (in Nova Scotia) is still 50 per cent contained and covers 15 hectares as of Saturday afternoon. (Nova Scotia Department of Lands and Forestry) Environment Canada is warning of elevated levels of air pollution for most of western Nova Scotia as multiple wildfires continue to burn in the area.

<https://www.seattletimes.com/nation-world/more-than-16000-evacuated-as-wildfire-rages-outside-halifax/>

More Than 16,000 Evacuated as Wildfire Rages Outside Halifax

Wildfires in Nova Scotia have heightened the sense of unease as blazes also burn in the west of the country.

Wildfire in Nova Scotia Forces Thousands to Evacuate

Excerpts edited by RAWSEP for brevity and clarity, and relationship to Residents Against Wood Smoke Emission Particulates.

Authorities have declared a state of emergency as the out-of-control wildfire burns near Halifax, Nova Scotia.

Oh whoa, whoa. I need to go, I need to go. You can't see anything. As wildfires buffeted western Canada on Tuesday, a blaze on the opposite end of the country in Halifax, Nova Scotia, has forced the evacuation of more than 16,000 people, compounding the national anxiety over out-of-control wildfires upending peoples' lives. Video footage of downtown Halifax late Sunday showed a dense plume of smoke enveloping the city, the sun an apocalyptic red, as a fire northwest of the city raged, spreading the smoke. The blaze broke out in an area that is about 15 miles from Halifax and that is home to many suburban professionals and families. Wildfires have broken out throughout western Canada, including British Columbia, and hardest hit has been [Alberta](#), an oil- and gas-producing province sometimes referred to as “the Texas of the North.” Earlier this month, the province declared a state of emergency. Climate research suggests that heat and drought associated with global warming are major reasons for bigger and stronger fires. In Nova Scotia, there have been 195 wildfires so far this year compared with 153 in all of 2022. But officials said the blazes had intensified this year.

Alberta Election: Voters in the oil-rich western Canadian province [kept its conservative government in power](#) but substantially reduced the number of seats it holds in the legislature. Wildfires: After [blazes in western Canada](#) drove [thousands of people from their homes](#), a wildfire in Halifax, Nova Scotia, [forced the evacuation of more than 16,000 people](#). The wildfires on both Canadian coasts have ushered in a feeling of foreboding. Fear and unease have settled over [Halifax](#), a normally serene maritime city on Canada's Atlantic coast that was founded in 1749 and served as a British naval and military base. The city authorities have declared a state of emergency, and on Monday, provincial government officials said that an estimated 200 buildings and structures had been damaged by the fire. The authorities said on Tuesday that so far, no deaths, injuries or missing people had been reported. The owner a farm in the area affected by the fire, said it had been harrowing to evacuate her home with her partner, her adult daughter and 57 horses.

“There were burning embers falling in my driveway,” she said. “There's no time to talk to anybody about anything — it's just action.” She said she feared losing her home. The farm owner put out a call on social media for help transporting the horses. On Tuesday, the Nova Scotia provincial government's [Department of Natural Resources and Renewables](#) said that the wildfire had affected about 1,950 acres, and remained “out of control.” “This is a rapidly moving fire,” the department said in a statement. “People are asked to please remain away from the area.” An investigation is underway into the cause of the fire. The manager of forest protection for the Department of Natural Resources and Renewables in Nova Scotia, said at a news conference on Monday that the authorities suspected that recent fires were “human caused.” More than 200 firefighters have been mobilized to battle the fire, and members of Canada's Department of National Defense have also been dispatched to the scene. The fire is also affecting daily lives. More than a dozen schools have closed, while campfires have been banned. Canadian health officials have warned that smoke can cause symptoms including sore and watery eyes, coughing, dizziness, chest pains and heart palpitations. In Alberta, as of May 19, roughly 29,000 people had been forced from their homes by the recent wildfires, though most have returned to their homes in recent days as the fires have diminished in scale and scope. The blazes in Alberta have revived bad memories of 2016, when a raging wildfire destroyed 2,400 buildings in [Fort McMurray](#), the heart of Canada's oil sands region with the third-largest reserves of oil in the world. In 2021, British Columbia was the site of one of Canada's worst wildfires in recent decades, when blazes [decimated the tiny community of Lytton](#) after temperatures there reached a record 49.6 degrees Celsius, or 121.3 Fahrenheit.



Canada, Quebec

[US Postal Service releases national dog bite rankings - KIMT](#)

KIMT

A band of smoke from wildfires in Quebec is currently moving west across ... such as outdoor burning, and use of residential wood burning devices.

[Storm Team 8 Forecast, 11 p.m., 060323 - YouTube](#)

YouTube

Dense wildfire smoke pouring in from Canada will make its presence known overnight. (June 3, 2023)

Australia, Mornington

[Have your say on wood heater smoke - Mornington Peninsula Shire](#)

Mornington Peninsula Shire

Wood heater smoke is generated from both wood-fired heaters and fireplaces. Indoor wood-fired heaters discharge their emissions through a metal ...

Australia, Sydney

[Death certificate cites air pollution - City Hub Sydney | Your Local Independent News](#)

City Hub Sydney

... nitrous oxide (which forms nitric acid every time it rains), nitrogen dioxide, carbon monoxide and fine diesel particles (< PM 2.5 – a proven ...

Death certificate cites air pollution

Excerpts edited by RAWSEP for brevity and clarity, and relationship to Residents Against Wood Smoke Emission Particulates.

Few people will have heard of Ella Kissi-Debrah. She was a nine year old girl from South London who died tragically 10 years ago. In a landmark case eventually finalized in 2020 [Ella became the first person in the world to have air pollution cited as the cause of her death](#). She was the victim of pollution caused by vehicle exhausts. She died of acute respiratory failure, asthma, and exposure to air pollution. Ella lived about 30 metres from a major London road. The mainstream media here are deaf to the concerns of thousands of Inner West residents. It appears that those of us who reside in the suburbs that surround White Bay are seen as inevitable collateral damage. WestCONnex will annually drench residents with more than 200 metric tonnes of particulate matter, fine diesel particles (PM 2.5 – a proven carcinogen), which the WHO has demonstrated is responsible for at least eight forms of cancer. Politicians are safe from any legal action by those of us who face premature and preventable death because politicians believe that we can't and won't be able to prove causality. Those residents [who live in the plume from the M5 East stack](#), a stack that releases around just fifteen lethal metric tonnes every year are today dying unnecessary and painful deaths, while the Health Department and the Environmental Protection Authority sit on their hands.

United Kingdom

U K, The Times

[World's most polluted countries REVEALED - and the worst might surprise you... - Daily Mail](#)

Daily Mail

It is measured in particulate matter 2.5 (PM2.5) and can be especially dangerous - it is linked to worsening medical conditions such as heart ...

[Time's up for Drax's tree-burning racket - Times](#)

The Times

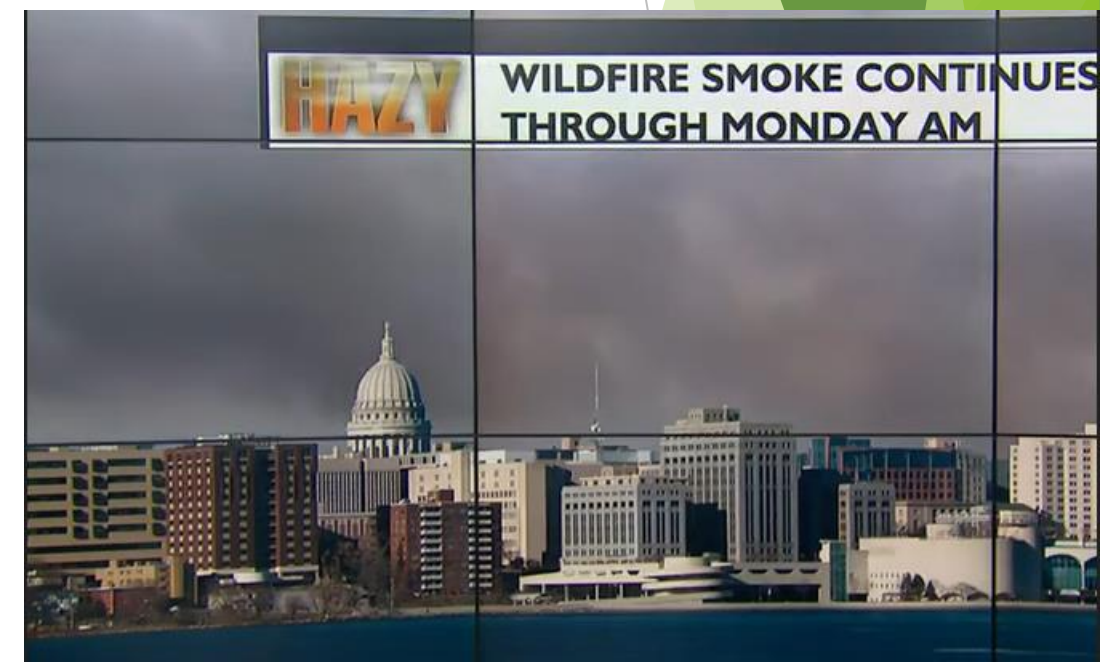
And a Swedish paper, "Harvesting in boreal forests and the biofuel carbon debt", noted: "Wood harvesting is ...

U K, Drax and it's wood supplier in Mississippi, Amite

[Drax-owned wood pellet plant in US broke air pollution ...](#)

The Guardian

<https://www.theguardian.com/business/may/drax...>



[Drax-owned wood pellet plant in US broke air pollution ...](#)

[The Guardian](#)

<https://www.theguardian.com/business/may/drax...>

Excerpts edited by RAWSEP for brevity and clarity, and relationship to Residents Against Wood Smoke Emission Particulates.

6 days ago — A US plant that supplies wood pellets to the UK power generator Drax has violated air pollution limits in Mississippi, it has emerged.

Drax-owned wood pellet plant in US broke air pollution rules again

Amite BioEnergy, which was fined \$2.5m in 2021, notified Mississippi facility had breached emission limits.

May 29, 2023.

(Amite), a US plant that supplies wood pellets to the UK power generator Drax has violated air pollution limits in [Mississippi](#). The Mississippi Department of Environmental Quality (MDEQ) notified Amite BioEnergy, a Drax-owned company, that Amite had violated emissions rules, because while the Amite plant was permitted to “operate as a **minor** source for hazardous air pollutants”, Amite’s monitoring reports show the Amite factory has been a **“major”** source of hazardous air pollutants from January 2021 until late 2022. The Amite plant in Gloster, Mississippi, converts trees from southern states into wood pellets, which are burned as biomass fuel in Drax’s huge power station in Selby, North Yorkshire. The **sustainability** of Drax’s operations has come [under scrutiny from MPs and environmental campaigners](#).

In 2021, Amite was fined \$2.5m (£2m) after breaching air pollution rules. It is unclear whether the latest breach will lead to a financial penalty. The March 2022 notice of violation said Amite was permitted to emit 24 U S tons (22 U K tons) a year of hazardous air pollutants on a rolling 12-month basis, but reached as much as **37 tons** between January 2021 and December 2022, peaking in July 2022. **In response, Drax argued that pellet production was a relatively young industry**, adding: “Several wood pellet facilities, not only Amite BioEnergy, initially **underestimated emissions** in connection with the permitting of these facilities. **Amite argued that it was only non-compliant for a short period – between late October and early November 2021**. Great Britain’s energy regulator, Ofgem, has launched an investigation, to be carried out by the US consulting group Black & Veatch, on whether Drax’s operations are **aligned with biomass sustainability rules**. Last year, the UK government was accused of funding **“environmental racism” in the US south** by providing subsidies to Drax. Drax, which has a stock market valuation of more than £2bn, **received £617m in government subsidies in 2022**. In the US, a campaigner for [Cut Carbon Not Forests](#) and a senior advocate for the Natural Resources Defense Council, said of Drax: “It’s already been fined once. But **a \$2m fine is pocket change** to a company that receives hundreds of millions of pounds in subsidies every year by claiming to be green. And now it’s doing it again. Burning trees in power stations should not be part of our energy system. The **UK government needs to stop handing billions of pounds in subsidies to companies like this that are poisoning people’s air**, making climate change worse, and destroying forests.” A former Conservative MP, who was an environment adviser to Theresa May, said another breach by Drax was “extremely worrying. It’s imperative that Drax, which **receives millions in bill-payer subsidies**, cleans up its act immediately.” The company reported annual profits of £731m in 2022, up from £398m the year before, and last month [said](#) it would hand investors £150m through a share buyback. Last week, Drax [told investors](#) it planned to expand significantly in the US. India

[CAQM invites ideas, projects for air pollution control in NCR - Hindustan Times](#)

Hindustan Times Delhi was ranked the fourth most polluted city in the world in 2022 with average annual PM 2.5 levels of 92.6 micrograms per cubic metre, ...Thailand

[Thailand's Wellness Possibilities Shine at the 2nd CISW Thailand Top Wellness World Summit 2023](#)

Bangkok Post Wellness and Wellbeing 21st Century Development and Innovation Technology/PM 2.5; Medical Wellness Business Market Investment Opportunity in Asia ...

[Poor Air Quality: Everything You Need to Know - EcoWatch](#)

EcoWatch Combustion and Smoke. Wood burning stoves release numerous pollutants. Loop Images / Universal Images Group via Getty Images. Anything that combusts ... Residents Against Wood Smoke Emission Particulates, see RAWSEPresidents.wordpress.com and click on the nearest right icon for the latest month, June 2023, of PDFs of articles with U R L’s to search on, to the right of that, Bingo for RAWSEP, Crosswords for RAWSEP, EndWoodSmokeJeopardy and EndWoodSmokeMonopoly Games with a RAWSEP Flyer, the “Un-Twist-it” Game, and icon links to 30 minute Youtube videos and Spotify podcasts as well as podcasts on Amazon Music Prime (free for Prime subscribers), podcasts.google.com, Cast Box, and Pocket Cast (Pocket Cast is only free on the phone App. Pocket Cast works on Apple phones) and, below those icons, icon links to monthly PDFs of articles with URL’s to search on, from May 2023 to May 2022.

