

Episode 56iP September 13, 2023. Misnamed wood for life, Suicide risk, Fed. of American Scientists on fed. agencies & wildfires.

The main topics in this episode are 1) Misnamed wood for life, 2) a study shows increased suicide risk from PM2.5 air pollution and each 10% increase in airborne particulate matter in rural counties causes monthly suicide rates to rise by 1.5% 3) Federation of American Scientists on federal agencies & wildfire sites 4) wood smoke by geographic community, and 5) a study shows increased breast cancer risk from PM2.5 air pollution,

1) RAWSEP View: Misnamed wood for life. The news story below illustrates a United States funded, through the Department of the Interior, step in the wrong direction, encouraging people to heat with wood, and misleadingly connecting wood burning with life, instead of with what we now know through medical science, correctly connecting wood burning with illness and early death. What is the best step in the right direction? 1) Funds from the United States government should subsidize clean heating sources such as wind and solar generation which powers a clean electric grid connected to Heat Pumps that in 2023 work at temperatures down to 40 degrees below zero Fahrenheit, lower monthly heating bills and also work as air conditioners. 2) Funds from the United States government should not encourage recreational burning of wood. 3) There are other ways to engage youths from the Navajo Nation, Hopi Tribe, Pueblo of Acoma, Pueblo of Zuni, and Pueblo of Isleta than to encourage use of heating sources that affect human health negatively, such as cause cancers and asthma, cause antibiotic resistance, **raise suicide rates and rates of breast cancer (with evidence from new study findings in September 2023)**, and shorten lives. 4) Burning wood directly works against the stated aim of climate mitigation, since wood burning produces more CO2 and PM2.5 than coal burning and 450 times the PM2.5 as natural gas burning. PM2.5, particulates of 2.5 micrometer size are the perfect size to infiltrate the human lung, setting off a cascade of human health problems and early deaths. 90% of wood burning emissions are of PM2.5 micrometer size. 5) Fire fuels reduction can be attained by wood chipping beetle killed or thinned logs, and then turning the wood chips into soil. How do you turn wood chips into soil? Step 1: Use a rake and gather wood and bark chips in a pile. Step 2: Mix approximately equal parts of organic green materials. Step 3: Use one or two handfuls of NPK* granular fertilizer and spread it evenly over the pile. Step 4: Moisten the pile to speed the decomposition process. Step 5: Make sure it's homogenic. *NPK granulated compound fertilizers are balanced formulations of nitrogen (N), phosphorus (P) and potassium (K), with additional nutrients including sulfur (S), magnesium (Mg) and calcium (Ca). All these nutrients are essential for healthy crop growth. Soil does not catch fire so turning wood into soil provides fire fuels reduction. 6) Exemptions of certain groups from public health directives which save human lives does those groups no favor. Exempted groups statistically will suffer illness and early deaths that could have been prevented. Residents Against Wood Smoke Emission Particulates points out that near neighbors of those who burn wood also have their health and lives affected adversely, and as we have seen from the Canadian Wildfire Smoke that invaded many states of the U S this summer, the adverse health effects of wood smoke can even extend hundreds of miles from the source of the wood fire.

Arizona, Colorado, New Mexico & Utah [Interior Department awards \\$1M to Wood for Life to help heat Indigenous communities' homes](#) The Journal. The Wood for Life program helps the Juan National Forest by putting beetle-killed or thinned logs to good use rather than burning them or leaving ... **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.** Interior Department awards \$1M to Wood for Life to help heat Indigenous communities' homes. Seven other Indian Youth Service Corps grants were awarded throughout the nation as well. September 11, 2023. The Wood for Life program helps the Juan National Forest by putting beetle-killed or thinned logs to good use **rather than burning them** or leaving them in the field. The U.S. Department of the Interior announced today that eight projects involving more than 20 tribes and tribal organizations were awarded close to \$3.5 million in 2023 Indian Youth Service Corps grants. [Wood for Life, a program that helps heat Indigenous communities' homes from firewood](#) harvested in Southwest Colorado, Utah, New Mexico, and Arizona, was awarded \$1 million. The grant will expand the Ancestral Lands Conservation Corps' program to further engage youths from the Navajo Nation, Hopi Tribe, Pueblo of Acoma, Pueblo of Zuni, and Pueblo of Isleta. The program will increase forestry, reforestation efforts and wildland fire mitigation. The U.S. Forest Service will supplement additional program coordination support. A previous [Journal](#) article explained how Wood for Life **increased firewood for the Navajo Nation from the San Juan National Forest.** A news release announced Monday that funds will help bring Indigenous youths. The program's [goals](#) also include stories and shared experiences for current and future generations, creating awareness of Indigenous culture and history, and conserving and protecting tribal and partner organizations' landscapes. Secretary Deb Haaland established the first awards for the IYSC as a partner-based program planned to bring forth Indigenous youths with meaningful, tribe-led public service opportunities. The \$3.5 million will provide tasks for the grantees that may include habitat surveys, invasive species removal, recreational expansion, oral histories, invasive species removal,

development of educational, informal or communication materials for the public, climate mitigation, watershed restoration, [fire fuels reduction](#), research projects and trail restoration.

2) Illinois, PM2.5 and Suicide rates in Rural & Urban America [Air pollution caused by wildfire smoke linked to elevated suicide risk in rural counties: U.S. research](#) CTV News Called PM 2.5, these tiny particles are considered one of the clearest measures of how dangerous air pollution is, as the particulate matter is ... Each 10% increase in airborne particulate matter in rural counties causes monthly suicide rates to rise by 1.5% on average, according to David Molitor, a professor of finance at the Gies College of Business at Illinois and co-author of the study.

Study: Air pollution via wildfire smoke increases suicide risk in rural counties. September 13, 2023. [Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates.](#)

Air pollution poses well-established risks to physical health, but an emerging body of research says that it may also have adverse effects on mental health. New research co-written by a University of Illinois Urbana-Champaign economist examining the relationship between air pollution via drifting wildfire smoke exposure and suicide risk found large-scale evidence that air pollution disproportionately elevates the risk of suicide among rural populations in the U.S. Each 10% increase in airborne particulate matter in rural counties causes monthly suicide rates to rise by 1.5% on average, according to [David Molitor](#), a professor of [finance](#) at the Gies College of Business at Illinois and co-author of the study. "As we all experienced over the summer, air pollution poses a major threat to human health and well-being," he said. "Long recognized for its impacts on physical health, our findings also suggest that air pollution exposure harms mental health – which, in turn, leads to greater loss of life by suicide. Taken together, it's something that policymakers can't ignore." "Suicide rates have increased by approximately 30% over the past two decades, positioning it as the fourth leading cause of years of potential life lost before age 65 in 2020," he said. "It's far too prevalent, and highly unequal across demographic groups. It's systematically higher in rural counties than in urban ones, and the urban-rural gap in suicide rates has been widening." The research was supported by the National Institute on Aging of the National Institutes of Health. Molitor was appointed as a 2023-24. Other sites for this study [Center for Advanced Study](#) associate to study climate-related environmental hazards such as pollution, severe weather, and natural disasters. PM2.5 and raise in Suicide Risk [Air Pollution From Wildfires Heighten Risk Of Suicide In Rural Regions: US Study](#) Free Press Journal Every 10 per cent increase in particulate matter, or PM 2.5, pollution in the rural counties was linked to a rise of 1.5 per cent in monthly ... PM2.5 and Suicide rates in Rural & Urban America [Air pollution and suicide in rural and urban America: Evidence from wildfire smoke - PNAS](#) PNAS In rural counties, an additional day of smoke increases monthly mean PM2.5 by 0.41 µg/m³ and suicide deaths by 0.11 per million residents, ...

3) RAWSEP View: This Federation of American Scientists article below is exclusively about wildfire smoke and how United States federal policy does and doesn't reduce wildfire smoke. This article does mention government use of PurpleAir PM2.5 monitors. This article does not connect the adverse air pollution effects of all wood smoke, which includes, wildfire smoke, industrial biomass (wood) burning plants, indoor residential wood burning and open wood burning in residential backyards. The article state that wildfire smoke is a chemical stew. This statement in the article detracts from the simple truth that wood burning alone is a source of air pollution, even before the wildfire smoke becomes a chemical stew. Wood smoke is wood smoke and contaminants other than wood included while wood burning can happen during a wildfire (when wildfires consume residences, for instance), during biomass (wood) burning in plants (during deliberate addition of tires to the flames in some instances), and during indoor residential wood burning or residential open burning in yards (when garbage is added to a wood fire, for instance). [How federal policy does \(and doesn't\) reduce wildfire smoke risk](#) Federation of American Scientists. ... is most well-studied and considered the most immediately threatening is fine particulate matter 2.5 microns in diameter and smaller (PM2.5). Policy to Protect Vulnerable Populations The federal government is investing heavily in smoke research, situational awareness, and hazardous fuels mitigation but has thus far not implemented rules mandating protection from unhealthy air quality. Science Policy. Seeing Through the Haze: How the federal government does (and doesn't) work to reduce public exposure to wildland fire smoke. September 13, 2023. 24 minutes read. Media coverage of wildfire often focuses on the brutality of death and destruction – but alongside these horrific outcomes is the often overlooked and underestimated danger of smoke. This insidious threat isn't localized to the fire itself but can spread across the country. Worse, we don't have a coordinated response. This report explores what is being done at the federal level to address wildland fire smoke, what's missing, and makes recommendations to address this national health issue. [The article below is edited to enable readers to easily click on URLs of U S Government Agencies websites that have information for mitigating wildfire smoke health effects.](#) Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates wildfire season is now [longer in the West](#), Wildland fire smoke is a [chemical stew](#). The component most well-studied and most immediately threatening is PM2.5, Smoke exposure [leads to](#) asthma, COPD, stroke, heart

attack, [increased susceptibility](#) to infectious disease (antibiotic resistance), and increased hospital visits and deaths, and [developing dementia](#). Thousands of deaths and hospitalizations [occur each year](#) there is no one federal office, department, or agency with wildfire effects knowledge, and research is scattered and on an ad hoc basis. “What is the federal government doing about wildland fire smoke, and who’s doing it?” “[Wildland Fire Smoke in the United States: A Scientific Assessment](#).” 346 pages published in late 2022, outlines wildland fire smoke research. Scientists from land management (USFS, BLM, NPS), earth sciences (NOAA, NASA, USGS), health (CDC, EPA), and other (DOE, DoD, DHS, NIST) agencies all take part, as well as agencies and offices (for example FASMEE and FIREX-AQ, below). federal agencies partner with state, local, Tribal, university, international and nongovernmental entities. The federal government sponsors universities and other non-governmental organizations, with federal grants coming from [NSF](#), [NIH](#), [EPA](#), [DoD](#), [CDC-NIOSH](#), USFS and DOI (via the [Joint Fire Sciences Program](#)), [HRSA](#), [NASA](#), and [NOAA](#). See [this table for an overview](#) of where federal agencies and offices intersect on research. Below are some selected highlights: FASMEE and FIREX-AQ [FASMEE](#) (primary agency: USFS) and [FIREX-AQ](#) (primary agencies: NOAA and NASA) are large-scale, multi-year research combining satellite, aerial and ground measurements. EPA does an [array of wildland fire smoke research](#) including an [evaluation of DIY air cleaners](#), [a characterization of emissions from fires in the wildland urban interface](#), [an analysis of indoor air quality in commercial buildings during smoke events](#), and [development of a community health vulnerability index for wildland fire smoke](#). The [Joint Fire Science Program](#) (JFSP) is funded by DOI and USFS. Since 1998, JFSP has invested \$25 million in wildland fire smoke research by agency and nonfederal partners and also the [Fire Science Exchange Network](#) Wildland Urban Interface (WUI). Fire Smoke from burning vegetation is composed of [toxic chemicals](#). To understand smoke in the Wildland Urban Interface (WUI), NIST, NIEHS, and the CDC sponsored the 2022 National Academies of Sciences, Engineering and Medicine (NASSEM) report: [The Chemistry of Fires at the Wildland Urban Interface](#), EPA compiled [emission factors for hazardous air pollutants](#) that may be found in WUI fires. NIST’s work in [fire](#) focused on residential and commercial structure fires, but NIST started modeling [WUI and landscape fires](#) and how [smoke may impact evacuations](#). NASA Health Research. NASA’s [wildland fire smoke research](#) is atmospheric science and the physical characteristics of smoke. NASA funds Health and Air Quality Applied Science Team ([HAQAST](#)) since 2016 as part of its [Applied Science](#) program. NASA [funded a project](#) on the health burden of the 2017 wildfires in California. NASA also [funded a study](#) on smoke from Alaska wildfires on respiratory and cardiovascular health. Wildland Firefighter Exposure [Recent research](#) by CDC-NIOSH (with USFS and DOI) to understand firefighter health. [previous USFS](#) and [JSFP](#) research was on [adequate respiratory protection](#), DHS ways to [develop a respirator](#). EPA’s [Wildfire Fire Smoke Guide for Public Health Officials](#) (with experts from CDC, USFS). EPA and CDC [course](#) for physicians and other medical professionals. [EPA](#) and [CDC](#) fact sheets by topic. CDC-NIOSH has guidance for [protecting outdoor workers](#) with [information](#) about respirators. EPA [Smoke Ready Toolbox](#). both [EPA](#) and [CDC](#) have resources. [NPS](#) and [FEMA](#) information on respirators. USFS smoke preparedness on the [Interagency Wildland Fire Air Quality Response Program](#) and the [Wildfire Risk to Communities](#); DHS information about respirators on [Ready.gov](#); and the DoD [fact sheet for military personnel](#) about wildland fire smoke (though it has incomplete health impact information). Wildland fire smoke is a chemical stew. Situational awareness/monitoring. Air quality monitoring data provides real-time information about how much smoke is currently impacting communities. Real time air quality monitoring data allow the public to understand current conditions. EPA, USFS, NPS and state, local and Tribal air pollution control programs deploy and maintain particulate pollution monitors that can measure the PM2.5 levels in wildland fire smoke. EPA provides access to PM2.5 air monitoring data from permanent monitors across the country via [Airnow.gov](#) and its apps. For wildfires, however, the agency [directs the public](#) to the [Fire and Smoke Map](#). This map is a public-facing collaboration between EPA and USFS that provides near real-time data about both smoke pollution and fires based on the user’s location. The Fire and Smoke Map incorporates air quality data from permanent monitors, temporary monitors, and [Purple Air sensors](#); heat detections from NOAA and NASA satellites; fire information from the National Interagency Fire Center; smoke forecast from the Interagency Wildland Fire Air Quality Response Program; and smoke plume overlays from NOAA’s Hazard Mapping System. EPA’s color-coded Air Quality Index provides the public with [pollution severity indicators and associated protective measures](#). [Satellite-based heat detections](#) show real time fire activity. These data are also incorporated into smoke models discussed below. Science agencies including [NOAA](#) and [NASA](#) provide satellite imagery and [analysis](#) forecasts models and narratives are done by NOAA, EPA, USFS, NIST, DOE, NASA, and DoD. NOAA [HRRR Smoke](#) and [RRFS Smoke](#), and [air quality forecasting guidance](#). NOAA’s National Weather Service issues [air quality alerts](#) USFS [Interagency Wildland Fire Air Quality Response Program](#). The USFS gathers Air Resource Advisors (ARAs) from federal agencies (including USFS, NPS, and EPA), state, Tribal and local governments, and the private sector. ARAs provide daily smoke outlooks to the public and deploy air quality monitors. USFS [BlueSky](#), supports ARA efforts and is available to the public. USFS incorporates EPA’s [CMAQ](#) into BlueSky’s framework for daily smoke projections. Direct

community assistance. research [showing](#) that a significant amount of smoke [comes indoors](#), Federal agencies such as [EPA](#) and [USFS](#) encourage the creation of smoke-ready communities. [Unlike hazards such as flood and fire](#), there are no smoke-specific community resilience grants available from FEMA. EPA has provided [technical assistance to communities](#) EPA with USFS helped two counties develop smoke preparedness plans as part of a [research study](#). EPA [Wildfire Smoke Preparedness in Community Buildings Grant Program](#), which provides eligible entities a chance at a part of \$10.67 million to improve public health protection against wildland fire smoke. The agency anticipates funding 13-18 projects. While EPA's Environmental Justice Grant program is not specifically targeted at wildland fire smoke, [some communities](#) have successfully applied for [EPA Environmental Justice Grants](#) to implement smoke-preparedness projects. EPA also maintains an [air sensor loan program](#) to assist communities. USFS [Community Wildfire Defense Grants](#) (CWDGs), [Healthy Forest Restoration Act \(HFRA\) of 2003](#) HFRA makes no mention of smoke, and smoke preparedness is not included in [existing CWPP guidance](#). Unsurprisingly, out of [\\$197 million awarded to 100 projects](#) in March 2023, only a single funded CWDG project mentioned smoke preparedness in its CWPP planning project summary. No funded implementation projects include smoke preparedness efforts. (It is possible successfully funded CWPP updates will result in smoke preparedness planning that was not included in the short project summaries available online.) CDC [Public Health Emergency Preparedness](#) (PHEP) funding used to purchase air purifiers and HEPA filters. In 2017, the Missoula City-County Health Department (MCCHD) in Missoula, Montana [overdrew its PHEP budget to purchase air purifiers](#) for communities hit with hazardous smoke. In 2018, MCCHD used PHEP funds to purchase replacement HEPA filters and additional air purifiers. In March 2021, the American Rescue Plan Act (ARPA) [allocated](#) billions of dollars to "keep schools safely open" in the context of the COVID-19 pandemic. Schools can use [ARPA Elementary and Secondary School Emergency Relief](#) (ESSER) funds, which the Department of Education administers to states and school districts, can be used to [support](#) HVAC and filtration improvements in schools. schools are [projected](#) to spend almost \$10 billion on HVAC upgrades using these funds. While these ESSER funds are focused on reducing the spread of COVID-19, filters recommended for the fine particles in wildland fire [smoke](#) are the same ones recommended for [viruses](#). Consequently, schools that upgrade their filtration using these funds (and in accordance with EPA or ASHRAE guidance) will also likely be better protected from wildland fire smoke. While there are many factors beyond filtration that impact indoor air quality, HVAC maintenance and filter upgrades are important interventions. questions remain about the [public health](#) impacts from prescribed fire, and much is needed to be done to [protect communities from prescribed fire smoke](#). Recent studies from Australia have indicated health impacts from prescribed fire smoke can sometimes [exceed that from wildfire smoke](#), and if climate change continues to worsen, the increased health burden of wildfire smoke will ["undermine prescribed burning effectiveness."](#) Agencies conducting prescribed burning include USFS, BLM, BIA, NPS, FWS, and DoD. Several of the topic areas described above are conducted by the federal government in support of prescribed fire. Opportunities. [hazardous fuels mitigation](#) only [California](#) and [Oregon](#) mandate employers protect workers from wildland fire smoke. (Washington is in the process of finalizing a [similar rulemaking](#) to replace an emergency rule that [expired in September 2022](#).) In a [2022 consensus study report](#), a NASEM committee recommended OSHA set standards for wildfire smoke exposure and mandate employers protect workers. While there are no [EPA](#) or [OSHA](#) indoor air quality standards for particulate matter or wildland fire smoke, [ASHRAE](#) is preparing [guidance](#) for commercial buildings that localities can adopt to better protect indoor workers and school children from smoke. ASHRAE released a [framework](#) ASHRAE's formal guidance, Guideline 44-202x: Protecting Building Occupants from Smoke During Wildfire and Prescribed Burn Events, is [available](#) for public review. While FEMA provides [multiple funding opportunities](#) for pre-and-post fire hazard mitigation work, wildland fire smoke is not identified as a hazard that can trigger a federal emergency declaration under the Stafford Act. The [S.2387 Wildfire Smoke Emergency Declaration Act of 2023](#) aims to address this by authorizing the President to declare a smoke emergency and enable FEMA and other federal agencies to "provide emergency assistance to states and local communities that are or will be affected by the emergency, including grants, equipment, supplies, and personnel and resources for establishing smoke shelters, air purifiers, and additional air monitoring sites." Another introduced bill, the [Cleaner Air Spaces Act of 2023](#), would direct \$30 million to air pollution control agencies via In fact, [multiple bills](#) have been recently introduced in Congress to address community wildland fire smoke protections and smoke forecasting. None of these bills have made it out of committee as of publication. In rural areas, that capacity can be particularly hard to come by. For example, the five-person [Central Montana Health District](#) provides public health services for five counties. Also in Montana, the single public health nurse for [Granite County](#) is based out of neighboring Deer Lodge County. Communities without persons able to engage in the competitive funding environment for wildland fire smoke response will have lesser public health protections. A [2022 NASEM consensus study report](#) sponsored by EPA, CDC, DOS, and the CDC Foundation identified several shortcomings of N95s as the only respirator for public use. NIOSH (collaborating with NASA and Capital Consulting Corporation) recently

launched a [crowd-sourcing competition](#) to improve respirator fit evaluations [News releases](#) about upcoming prescribed fires may mention smoke being visible or present over roadways. the [USFS Wildfire Crisis Strategy documents](#) lean heavily on the need for more prescribed fire, but do not mention the impact from prescribed fire smoke on the public. [documents](#) with advice for reducing wildfire risk and creating [fire adapted communities](#) (FACs) is often limited to protection from flames. (Of note, on the [USFS FAC site](#), the only mention of smoke states: “Fuel reduction projects often involve smoke.”) [fireadapted.org](#), run by the [Fire Adapted Communities Network](#) (which counts several federal agencies and collaborations among its members), includes public health and smoke concerns. Too often, this information is relegated to [estimates](#) in academic journals and increases in odds and relative risk ratios that are not lay friendly. A recent [FAS policy recommendation](#) would see the CDC and EPA create a nationwide data dashboard showing mortality and morbidity attributed to wildland fire smoke. EPA and CDC only recently gained seats on the [Wildland Fire Leadership Council](#), which has been around for decades. The [Wildland Fire Mitigation and Management Commission](#), tasked by Congress recommends improving the government’s response to the wildland fire smoke crisis. NOTE 1: For many agencies, wildland fire smoke work is more tangential to their overall mission and funding. for EPA wildland fire smoke work is conducted on the side without a [dedicated funding source or staff position](#). NOTE 2: State, local, Tribal, university, nonprofit and international experts are active in the wildland fire space and contribute significantly to efforts to protect public health. NOTE 3: This analysis may not encompass all wildland fire smoke efforts at all agencies. Acronyms: BLM: Bureau of Land Management CDC: Centers for Disease Control and Prevention EPA: Environmental Protection Agency FEMA: Federal Emergency Management Agency GSA: General Services Administration HRSA: Health Resources and Services Administration NASA: National Aeronautics and Space Administration NOAA: National Oceanic and Atmospheric Administration NPS: National Park Service DHS: Department of Homeland Security DoD: Department of Defense DOE: Department of Energy DOI: Department of Interior USGS: United States Geological Survey NFS: National Science Foundation NIEHS: National Institute of Environmental Health Sciences NIH: National Institutes of Health NIOSH: National Institute for Occupational Safety and Health NIST: National Institute of Standards and Technology OSHA: Occupational Safety and Health Administration USFS: United States Forest Service

4)United States Midwest [The summer of wildfire smoke was only the beginning | WOODTV.com](#) While Western states have contended with smoky fire seasons for years, the air quality alerts across the U.S. Midwest and Northeast this summer ... California, San Diego [San Diego's top stories for September 11 at 6 p.m. - YouTube](#) San Diego's top stories for September 11 at 6 p.m.. 2.5K views · 3 hours ago ...more. CBS 8 San Diego. 293K. Subscribe. 293K subscribers. Connecticut, New Haven, Yale [Yale researchers identify racial disparities in clean air access - Yale Daily News](#) By analyzing cardiovascular mortality and particulate matter ... Chen believes PM 2.5 is the main driver of poor air quality globally, ... Hawaii, Maui [DOH releases preliminary, unvalidated data from Maui air sampling - Governor Josh Green](#) Hawaii.gov These monitors scan for a very fine, dust-like material called “Particulate Matter” or PM 2.5, which is indicative of ash and dust. Hawaii, Maui [DOH releases preliminary, unvalidated data from Maui air sampling following wildfires](#) Maui Now September 11, 2023 · 10:44 PM PDT ... These monitors scan for a very fine, dust-like material called “Particulate Matter” or PM 2.5, ... Indiana, Greencastle & Fillmore.[Burning concerns brought up in Fillmore \(9/11/23\) | Greencastle Banner Graphic](#) Banner Graphic. Residential burning (i.e., including brush, paper, and wood), however, can be restricted by municipalities per their own burn ordinances. The Fillmore Town Council fielded from Fillmore Fire Asst. Chief Dan Heavin about mitigating open burning at tis regular meeting Thursday evening. Now, the town is going by general standards. Heavin related that calls have consistently come in which items such as copper, leaves and tires have been burned at night. Texas, Austin [Fire at Austin's Red Ash leads to restaurant evacuation, temporary closure](#) Austin American-Statesman Dark smoke billowed into the streets and alleyways of downtown Austin. 6 p.m. and by 7 p.m. crews had controlled the fire that was contained to the kitchen in the restaurant built around a wood-burning grill Australia, Canberra [Canberra Raiders coaches need to focus on discipline, not complaining](#) The Canberra Times Wood smoke kills. Jennifer Hobson (Letters, September 8) is in denial about the fact that wood heater smoke is one of the most important ... Thailand, Bangkok [Impactful Carbon Credit Initiative: IRPC's Sustainable Environmental Commitment](#) Bangkok Post Consequently, forest abundance will improve, and wildfires and PM 2.5 pollution will be sustainably reduced. Ultimately, Thailand aims to produce ...

5)PM2.5 and Breast Cancer [The Link Between Breast Cancer and Environmental Pollution - HealthNews](#) ... pollution related to fine particulate matter from industrial and wildfire smoke. ... wood smoke, burning vegetation, and industrial emissions. PM2.5 and Breast Cancer [High levels of particulate air pollution associated with increased breast cancer incidence](#) National Institutes of Health (NIH) such as motor vehicle exhaust, combustion processes (e.g., oil, coal), wood smoke/vegetation burning, and industrial emissions. PM2.5 and Breast Cancer [High levels of particulate air pollution associated with increased breast cancer incidence](#) ScienceDaily ... oil, coal), wood smoke/vegetation burning, and

industrial emissions. The particulate matter pollution measured in this study was 2.5 microns ... PM2.5 and Breast Cancer [Living in High-Pollution Areas Increases Breast Cancer Risk, Study Suggests - WebMD](#) Sources of PM2.5 pollution include motor vehicle exhaust, combustion of coal or oil, wood smoke, and industrial emissions, the authors noted. PM2.5 and Breast Cancer [High Levels Of Particulate Air Pollution Linked To Increased Breast Cancer Incidence, NIH ...](#) WGRT High Levels Of Particulate Air Pollution Linked To Increased Breast Cancer ... combustion processes, wood burning, and industrial discharges. PM2.5 and rise in Breast Cancer and Suicide [New studies link air pollution to both breast cancer and suicide - AirQualityNews](#) Women who lived in areas with higher PM levels prior to enrolling in the ... cancer incidence for living in areas with higher PM2.5 exposure. Not the U S Department of Forestry, Forestry.com, a promotion of wood burning whether it pollutes the air or not [Guide To Firewood 2023 - Forestry.com](#) Forestry.com Wood Types and Their Heat Output · Oak: Oak is renowned for its high heat output and long burn times. · Maple: Maple is another hardwood that burns hot ...

