

Response to NAAWG 11/17/03 Draft

Three points distill the essence of the Long-term Strategic Framework for Air: Information, Urgency, and Implementation. Corresponding focus should be the global lack of knowledge, the impact on children, and source oversight on the part of governmental agencies, including the United States' Environmental Protection Agency, Canada's Environmental Protection Service, and Mexico's Air Protection Center.

The environment, as a "clean-air issue," is a purely modern concept; its genesis the Great London Smog of 1952, when an alignment of circumstances created air that literally suffocated the residents of London. A long-lasting temperature inversion trapped fireplace smoke, causing 4000 deaths and extensive, and chronic, cardiac and respiratory illness. If the residents of London had been burning wood rather than coal, the fatalities and illnesses would have been higher. In the hierarchy of pollutants (see enclosure) wood is worse than coal. But not as bad as dung or green waste.

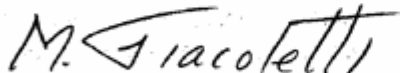
A few years ago, China created, and suffered from, the "Asian Brown Cloud," a 2-mile high and wide layer of pollution caused by wood and dung-burning. But China is hardly unique in creating smoke. In a 2003 space station interview, the American astronaut was asked what his impressions were, looking from a great distance at our small and vulnerable planet. He said it was disheartening to see all the smoke, all from human sources, obscuring the planet.

When the public and environmental agencies think of air quality, they rarely think of collective fireplace, or barbecue, or campfire smoke. Yet, exposure to woodsmoke, globally, is the second biggest killer of children under 5. The highest level of pollution in California has been recorded at midnight, and the unhealthiest air anywhere in the United States and Canada can be inhaled at campgrounds. Campgrounds can be avoided, but neighborhoods, where "woodsmoke is the fastest-growing form of pollutant," can't. In a study of trees, downtown New York proved to be a healthier environment than rural America. The greatest damage to the California Oak, which is currently imperiled, has been documented in campgrounds. Trees "breathe" at night and what they are increasingly subjected to are heavy doses of particulate matter; an acidification as lethal to trees as it is to humans. According to a World Bank study, deaths caused by PM10 exceed those caused by any other pollutant.

Unfortunately, very little light is being shed on the black hole of ignorance that is woodburning. Every real estate ad touts "a wood-burning fireplace" as if it were the holy grail. Home decor magazines are generous in their visual emphasis of wood burning in the hearth, without any concern for the consequences in the community.

The environmental movement started with coal smoke. Wood, worse than coal, is still burning. This is a "clean-air issue" which should be given highest priority in any "long-term strategic framework" which has as its goal clean air and healthy children.

I hope George Carlin was wrong when he said, "I think the human race has squandered its gift."



Mary Power Giacoletti 9349 Jasper Way San Simeon, California 93452 April 1, 2004
Enclosures

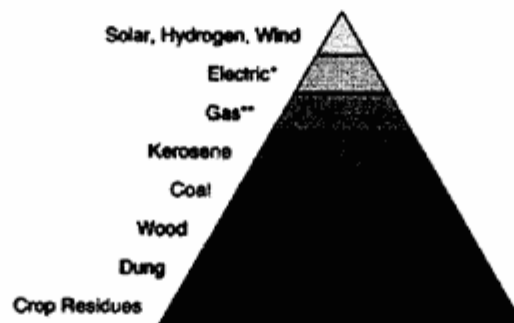
Burning Issues

A project of Clean Air Revival, Inc.

Energy Ladder: a Concept in Fuel Cleanliness.

How does wood as a fuel compare with other sources in cleanliness?

Sources of Fine Particulate Pollution compares the quantity of particulate matter produced by various fuels and sources. It shows the number of grams of fine soot produced in an hour by home heating devices, recreational petroleum wax sawdust logs (they may contain other garbage as fuel also) and transportation. For comparison we also added thirty cigarettes to the chart. Agencies of the United States Government, and the Canadian and Australian governments promote the new wood stoves and fire logs to solve wood smoke air contamination. But their logic is flawed, as you can see in this chart.



How Efficient is Solid Fuel? The Energy Pyramid

By this we are asking what quantity of the fuel does it take to heat the house or cook the meal or power the lights. Solid fuels or biomass fuels are less efficient than oil, natural gas or propane. It takes larger quantities of peat, wood, or coal to do the job and they will produce larger quantities of smoke when they are burned. Solid fuels produce dramatically less heat for the amount of fuel consumed and produce dramatically more pollution. When we use more efficient fuels we produce less pollution. It is as simple as that. This has been described as the energy ladder. The dirtiest fuels such as grass and animal dung are at the bottom. Going up the ladder, step by step with wood, then coal, until the next most efficient type of fuel is used. Dramatic reduction in pollution occurs when the next physical state, liquid kerosene is reached. Liquid fuel is less polluting than solid fuel. Natural gas and propane are dramatically less polluting than solid or liquid fuels. Electric energy produces no at site pollution although it's generation does produce pollution. Wind, solar and hydropower are the cleanest forms of energy, as there is no combustion. Carrying the ladder analogy further, an **Energy Pyramid** symbolizes both quantity of fuel used and quantity of pollution produced going up the energy ladder. Say we do not know the number of grams that charcoal briquette combustion would

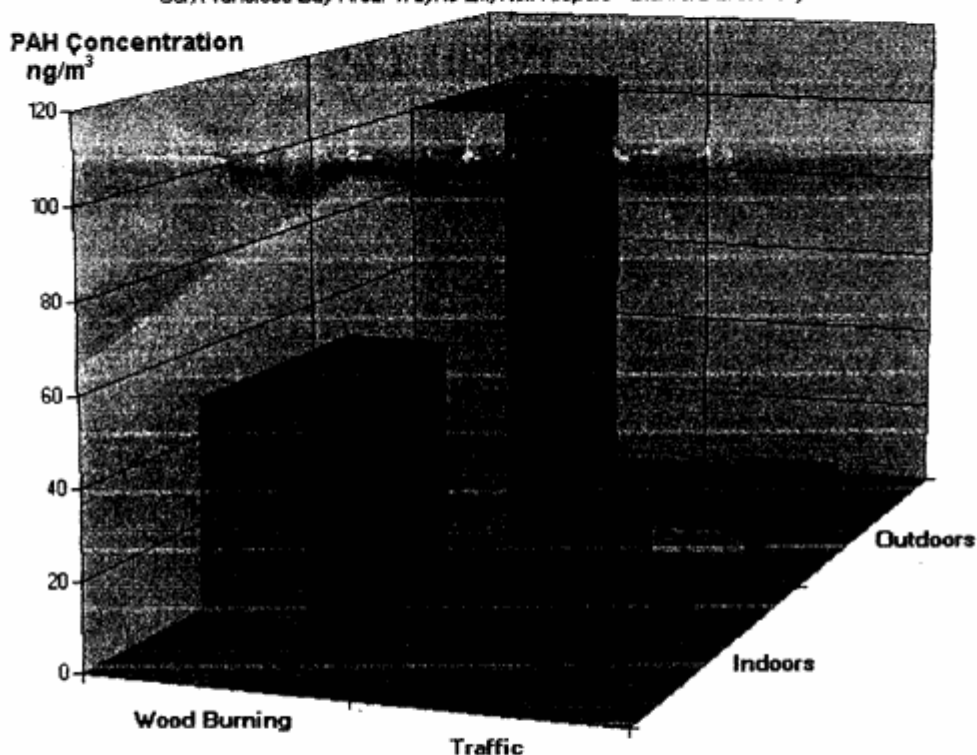
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Polycyclic Aromatic Hydrocarbon Exposure from Wood Burning And Traffic

Indoor and Outdoor PAH 12-Hour Daily Mean Concentrations Corresponding to Emissions from Wood Burning and Traffic

Oct - Apr for Woodburning; n = 342 -- May - Sept for Traffic; n = 176
San Francisco Bay Area: Wayne Ott, Neil Klepeis - Stanford University



Carcinogens (mainly PAH) were measured from wood smoke at eleven locations in the Bay Area. Here is a look at one of these locations in a residential area of Redwood City, from December to March.

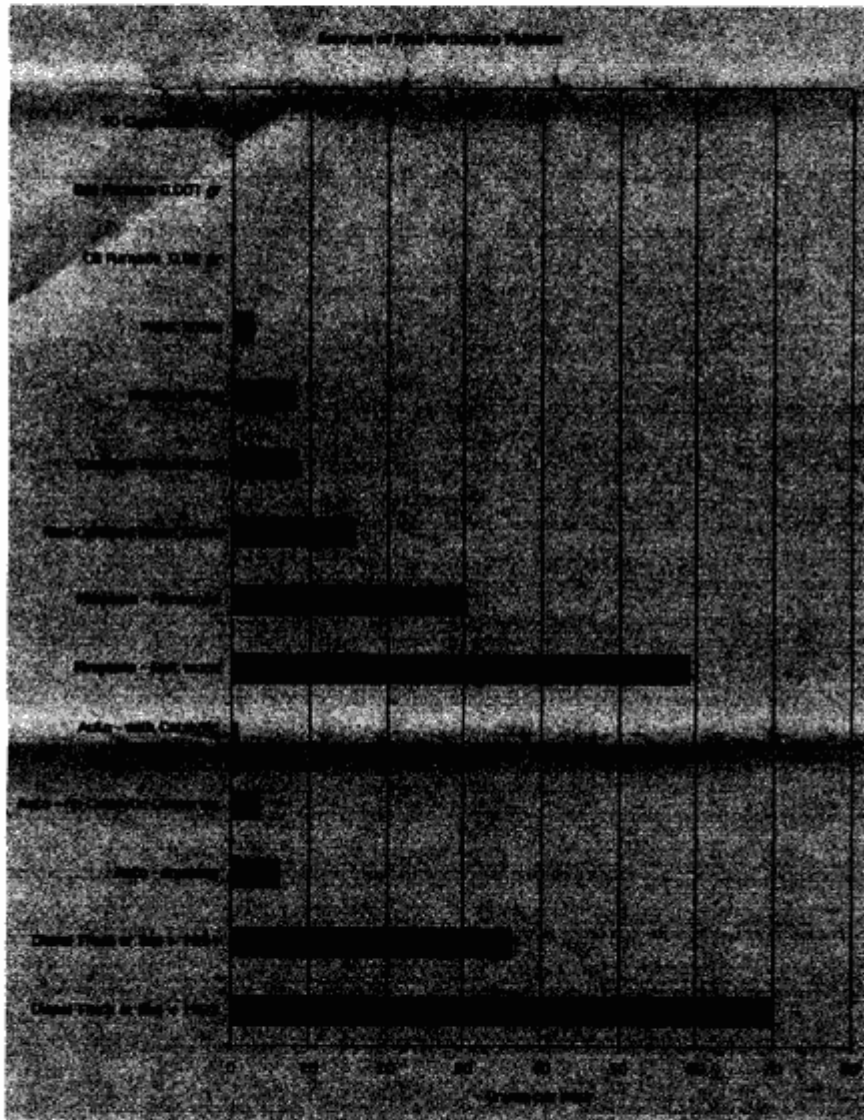
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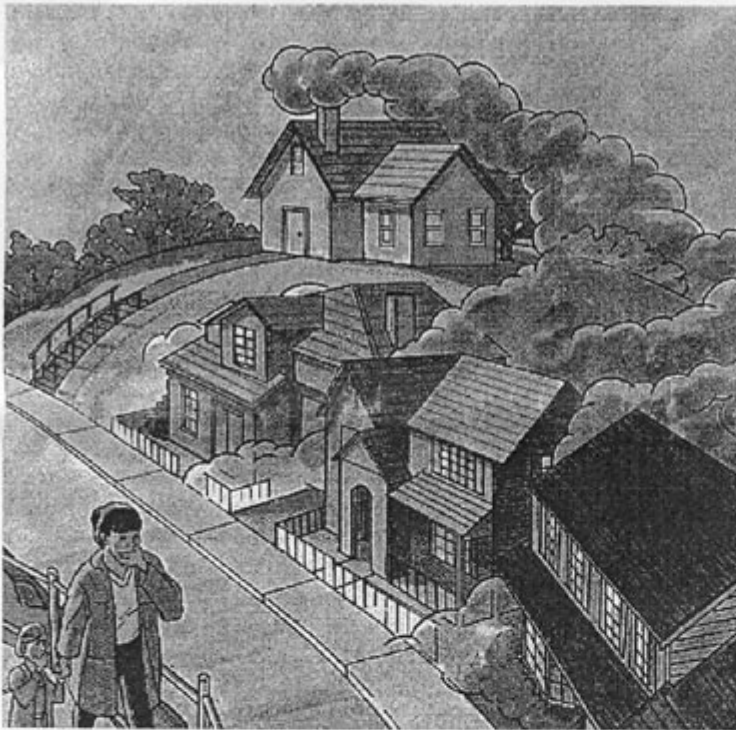
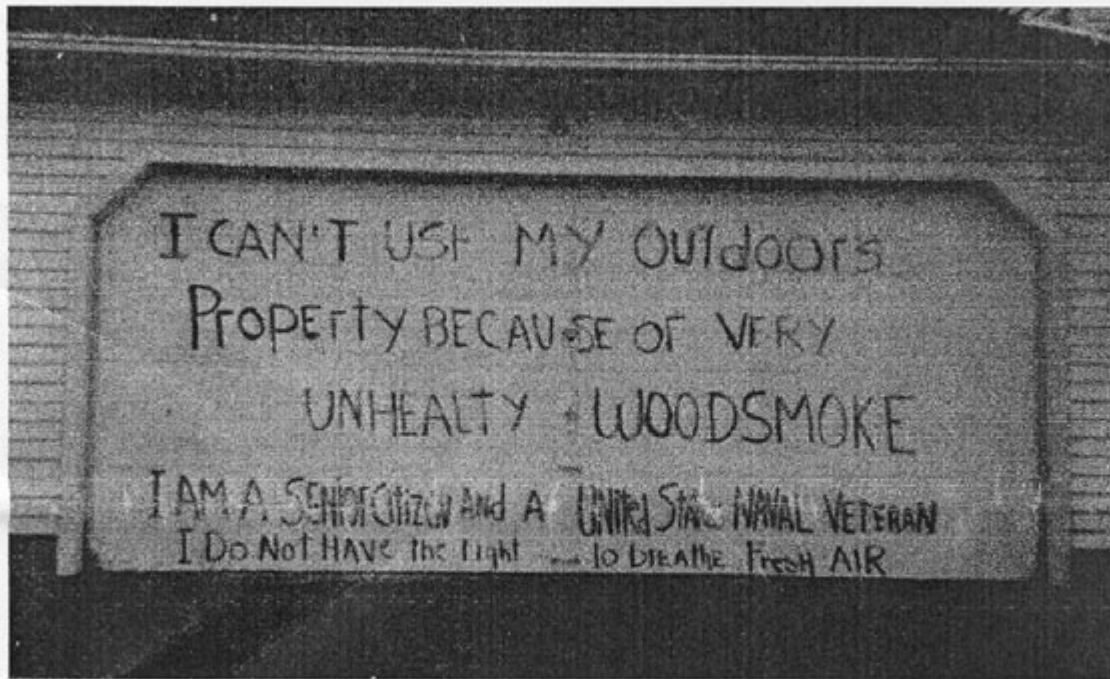
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Chart: Comparing Particle Emissions from Traffic, Cigarettes and Heating

AVERAGED EMISSIONS OF FINE PARTICLES IN GRAMS PER HOUR





Source: California Air Resources Board, 2003

FRESNO

San Joaquin Valley issues first burn ban

In a first of its kind announcement, San Joaquin Valley air regulators said they will enforce a mandatory ban today that prohibits thousands of residents from lighting up their fireplaces and wood-burning stoves.

The San Joaquin Valley Air Pollution Control District said the burn ban, the first mandatory restriction since new rules took effect Nov. 1, applies to residents living in the valley portions of Kern and Fresno counties. It covers pellet stoves as well as wood-burning fireplaces.

Violators can be fined \$50 to \$1,000, district spokeswoman Josette Merced Bello said Monday.

Despite some public objections, regulators enacted the burn ban to control particle pollution in a region deemed to have the nation's second-worst air quality.

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Does this represent a turning point? This letter from Jack Broadbent, Executive Officer of the Bay Area Air Quality Management is the first such statement we have seen in the media since our founding, supporting the principal objective of Burning Issues, that is, the elimination of the pollution generated by wood burning. ED

LETTERS TO THE EDITOR

Friday, January 2, 2004

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URL: sfgate.com/article.cgi?file=/chronicle/archive/2004/01/02/EDGAC40NGO1.DTL

Guarding the air -- and our need for growth

Editor -- The article "Clear skies and political will" (Tom Turner, Open Forum, Dec. 29) underscores how crucial it is for Bay Area businesses, governments and residents to remain diligent in our pursuit of clean air.

The Bay Area is a leader in meeting air-quality standards thanks to aggressive programs to reduce industrial and motor-vehicle emissions. The region is the largest metropolitan area in the country to meet the one-hour federal standard for summertime ozone pollution. But we violate the new federal eight-hour ozone standard, and more stringent state air standards set to protect public health.

This year represents a tremendous opportunity to further reduce emissions, improve air quality and protect area residents while accommodating increasing growth and economic activity.

At the Bay Area Air Quality Management District, we will propose a new Clean Air Plan in 2004, with additional measures to further reduce air pollution. Our directors will consider several new rules to reduce emissions at refineries. We will support regional initiatives to accommodate growth in an environmentally friendly way, promoting infill development in cities and livable communities where residents can walk, bike and take transit.

The air district and the California Air Resources Board plan a joint effort to reduce particulate matter. We can reduce this pollutant in our neighborhoods by eliminating wood-burning in fireplaces and woodstoves.

JACK BROADBENT

Executive officer

Bay Area Air Quality Management District