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ADVOCATES for CLEAN AIR

SUBMISSION NO. 110

31st October, 2003

Environment and Heritage Committee
House of Representatives
Parliament House
CANBERRA ACT 2600

Secretary: *Paul Swan*

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INQUIRY INTO SUSTAINABLE CITIES TO 2025 OF REPRESENTATIVES
STANDING COMMITTEE ON
ENVIRONMENT AND HERITAGE

Dear Committee Members,

Re: WOOD SMOKE's Contribution to Unsustainable AIR QUALITY

Thank you for the opportunity to comment on Sustainable Cities. As per the discussion paper (p4), we agree "*this future vision will not be achieved without planning, and without a clearly articulated strategy*", and to that end consider the introduction of more stringent 'CLEAN AIR' policies is vital.

We believe a total ban on all unnecessary fire lighting practices (inclusive of wood fired home heaters) is urgently needed to achieve sustainable air quality in the future.

A number of Scientific studies have found wood smoke contains extremely harmful fine particulate matter (PM2.5), noxious gases, and a variety of toxic organic substances that can adversely effect health and increase mortality threats in vulnerable people.

Substantiating references are included in the enclosed information from the undermentioned authorities.

*The NEPC (National Environment Protection Council), Adelaide
Washington State Department of Ecology, U.S.*

UNE (Uni of New England), Armidale's Air Quality Research Group

The American Lung Association

The NSW EPA

Urban air quality has significantly deteriorated in recent years, due to an

ever increasing presence of ambient smoke pollution. Often unsuitable topography can cause inversions to act as a "lid", keeping toxic emissions near ground level where people live and work. The main sources of Wood Smoke are:-

1. Slow combustion home heaters installed in highly populated residential areas (where cleaner forms of heating could be chosen).
2. The burning of vegetative matter by individuals, as well as by commercial Developers (where chipping and mulching would be more appropriate).
3. Government Agencies conducting hazard-reduction burns (where in many instances, mechanical and manual clearing are possible).

In respect of Queensland's air quality, according to The Minister for Environment, The Hon. Dean Wells, (correspondence 9th November 2001), *"Air Quality in southeast Queensland may deteriorate in future if not carefully managed.....Wood fired home heaters are a significant source of man-made particle emission.....For particles of 2.5 microns size or less (PM2.5), more than 50% of the mass is from wood and vegetation burning.....Hazard reduction and agricultural burning often cause the air quality goal for visibility to be exceeded"*. (copy encl.)

SMOKE IS NO JOKE!

Since many in the community regard wood smoke as 'natural' and therefore SAFE, we believe EXTENSIVE PUBLIC EDUCATION programs are **URGENTLY** needed to disseminate the true facts about wood smoke's toxicity.

MOST AT RISK of suffering adverse effects and increased mortality threats are:- Newborns, Young Children, the Elderly, and the Immuno-compromised with pre-existing conditions such as:- Asthma Emphysema, Bronchitis, Heart disease, Cancer, Auto-immune dysfunctions like Lupus and M.S., MCS (Multiple Chemical Sensitivity) and Allergies.

The broader healthy community are also at risk of long-term health threats similar to **PASSIVE SMOKING**, as wood smoke contains many of the exact same Irritants, Toxicants, and Carcinogens as Cigarette Smoke. A chart comparing the identical substances in both wood and tobacco emissions is enclosed, plus an EPA report (Larson and Koenig) lists additional health harming substances in wood smoke alone. One U.S. EPA study (Lewtas et al., 1991) found *"the lifetime Cancer risk*

from wood smoke may be as much as 12 times greater than the cancer risk from equal concentrations of cigarette smoke" (ref. W.S. Dept. of Ecology, and UNE Air Quality Group, Armidale).

It seems incongruous that Governments have passed legislation banning cigarette smoke in work places, public dining areas, and on occasions within 10 metres of building frontages, while at the same time permit high quantities of environmental smoke (from unnecessary burning) to contaminate highly populated residential areas in greater proportions than cigarette smoke ever would.

Work areas and public places can be avoided by CHOICE, however NO CHOICE of avoidance can be exercised by vulnerable people whilst within their own homes. Environmental smoke can be all pervading and is not stopped by closed doors and windows. It offers no chance of escaping the respiratory distress, any number of irritating and debilitating symptoms (such as those listed here separately), nor the threat of premature death in those most vulnerable.

The ABS National Health Surveys in both 1995 and 2001 revealed approximately one third of Australians suffered some kind of respiratory complaint. (copy encl.)

The SIDS Foundation recommends: "Always keep your baby in a smoke-free environment" (recognising cigarette smoke is a major contributor to cot death)(copy encl).

The HEART Foundation (Dr. Paul Harris - RPA, Sydney) says:- "The incidence of cardiovascular events could be decreased by more than 50% if community risk factors were corrected" (many studies have found wood smoke to be one such risk factor in the incidence of heart attacks).

Asthma Queensland reports: "1 in 4 Children will experience Asthma symptoms.....Each survey in the last 15 years has shown an increase in Asthma prevalence". (copy encl.)

We consider the release of air toxics from natural wild fires, (occurring with relative frequency in our *unique Australian landscape*), is more than sufficient for vulnerable people to be subjected to, without also having to endure unnecessary putrefaction of their personal air spaces, as a result of deliberate fire lighting in situation where clean alternatives are readily available.

Wood Smoke is seriously hazardous to many and is being overlooked by those in authority whose job it is to protect both the environment and human health.

Whilst Queensland has Local Laws and Regulations that appear to offer protection against smoke nuisances, (plus an EPA Policy that describes air quality goals as: "aesthetic enjoyment of places and visual and local amenity"), none are able to be enforced due to the more powerful, and overriding Fire Legislation (ref. Qld. Parliamentary Library information enclosed). Fire Personnel are quoted to say:- "*There is nothing in our legislation that requires us to consider health.....We are only concerned with fire hazards involving loss of life and property.....the smouldering of large logs within residential areas over 3-4 days is normal and acceptable*". NO allowance is made for the loss of well-being, nor pain and distress experienced as a result of toxic emissions caused through either direct involvement, allowance, or *promotion of wood burning by The Queensland Fire and Rescue Authority.*

We accept it is not possible to eliminate all air pollutants, however those we CAN, we should, (unwarranted wood burning being the simplest to remove within the shortest timeframe).

Even though traffic is often assumed to be the most polluting, a study by NSW EPA found "WOOD HEATERS produced two to three times more particle pollution than cars". On a winter weekend in Sydney, 50% was found to be from wood smoke, while just 22% was from mobile sources (traffic), and 21% from major industry (with industrial sources rising to only 26% on weekdays). Regardless of the belief that nothing compares to the efficiency of wood heating the resulting pollution cannot be justified when weighed against the serious adverse effects caused to health.

The answer to clean efficient heating lies in *eco-efficient housing* with Building Codes requiring greater levels of insulation, suitable site positioning to maximise sun exposure, and other heat trapping methods (such as wired floors), to be incorporated in new constructions. Government incentives schemes may also encourage the installation of *Solar energy systems* in both new and existing structures.

Our view on *reversing the problems caused by automobile dependence* through "*developing sustainable transport networks*" (5.p9) (which would require the building of extremely expensive public transport infrastructure), is that the problems may be better served by challenging

Industry to further develop ELECTRIC CARS. A hybrid electric car, *The Toyota "Prius"* is already on the market and boasts a 90% reduction in emissions. In respect of contributions to air pollution, we see independent transportation as being more of a necessity than wood fires, and by comparison, having less of an impact on health. We believe Wood Smoke pollution poses a far greater *threat to the Nation's economic wealth*, and is requiring of more urgent attention to both EDUCATE the public, and ELIMINATE the health threat.

In spite of a number of Government Agencies acknowledging that Wood Smoke is a serious health hazard, and does cost the Community in terms of increased hospitalisations, doctor visits, pharmaceuticals, as well as lost productivity, NO real meaningful steps have yet been taken for URGENT elimination of those fire lighting practices which are UNWARRANTED.

"A Blueprint for ecological sustainable patterns of settlement to 2025" should be impossible to discuss without due consideration being given to the significant adverse health effects caused by *Wood Smoke*, the elimination of which could be easily and inexpensively achieved through Commonwealth Legislation imposing a BAN on all unnecessary wood burning activities.

Some argue Governments are unable to introduce laws which impinge on people's RIGHT of 'free choice' to burn wood, however Governments frequently DO impinge on free choice, one such example is the compulsory wearing of seat belts, where failure to buckle up has the potential to harm only that one individual. The release of wood smoke however, into an atmosphere from which others must draw breath, has the potential to HARM THE HEALTH OF MANY.

People should have the RIGHT to breathe CLEAN AIR whilst within their own homes. Nobody should have the right to burn and harm the health of others when there are numerous clean alternatives readily available for heating, cooking, disposal of waste vegetation, and reduction of fire hazards.

In relation to *"Mechanisms for the Commonwealth to bring about urban development reform and promote ecologically sustainable patterns of settlement"* (5.p3), we consider Waste Vegetation can be turned into *sources of renewable energy, the management* of which may include:-

- Selling to 'Green Power Stations' for generating clean energy. (The

Stanwell Corp Ltd, south of Brisbane, pays \$12/ton for vegetation which is burned under controlled conditions using scrubbers and filters to protect both the environment and human health (unlike domestic wood burning activities that can release all manner of toxic substances directly into neighbours homes).

- The production of wood chip and mulch for the benefit of soil and moisture retention, being sold in both domestic and export markets.

We believe innovative recycling practices providing *sources of renewable energy* are important components of creating Sustainable Cities, one recent example being the establishment of a power plant fueled by discarded Macadamia nut shells (Gympie Qld.).

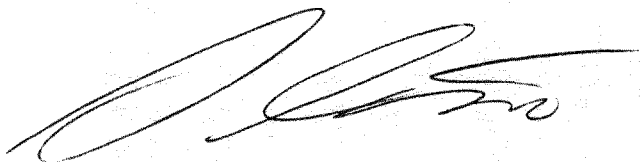
Copies of AFCA's correspondence to the NEPC:-

"Setting a Standard in Australia - PM2.5 Variation" (October, 2002); and "Air Toxics" (May, 2003) are enclosed, offering further perspectives on the impacts of wood smoke on human health as well as demonstrating the inadequacy of state and local laws to control smoke nuisances once a fire has been legally lit.

Also for your interest is a copy of a 'News Release' by 'NASA', on the subject of wood smoke from forrest fires causing loss of rainfall, headed "NASA Spacecraft Provides Direct Evidence - Smoke Inhibits Rainfall", (part of a submission by 'Australian Management Consolidated Pty Ltd' on Agriculture, Fisheries, and Forestry, concerning future water supplies for Australia's rural industries and communities).

We thank you for the opportunity to comment on sustainable cities 2025 and hope our perspectives will make a difference.

Yours faithfully,



Gayle Crossett (AFCA)
On behalf of those too sick
to raise a voice.

ADDITIONAL INFORMATION HELD BY THE COMMITTEE

ATTACHMENTS TO SUBMISSION NO. 110

**ATTACHMENTS, APPENDICES AND PHOTOGRAPHS PROVIDED WITH
SUBMISSIONS ARE HELD IN THE COMMITTEE OFFICE**