

# Submission to the Independent Inquiry into the EPA Victoria

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Healthy planet, healthy people.

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# Introduction

Doctors for the Environment Australia (DEA) is an independent, self-funded, non-government organisation of medical doctors and students in all Australian States and Territories. Our members work across all specialties in community, hospital and private practices. We work to prevent and address the health risks - local, national and global - caused by damage to our natural environment. We are a public health voice in the sphere of environmental health with a primary focus on the health harms from pollution, environmental degradation, and climate change.

Using the expertise of its members and in particular those with public health qualification in academia and government service, DEA makes on average some 15 submissions per year to national and state enquiries on the health aspects of major developments around Australia.

The following are 2015 submissions to the Government of Victoria and to the Commonwealth Government by DEA:

- Review of the Climate Change Act (2010) – Victoria  
[http://dea.org.au/images/uploads/submissions/Review\\_of\\_the\\_Climate\\_Change\\_Act\\_-\\_VIC\\_08-15.pdf](http://dea.org.au/images/uploads/submissions/Review_of_the_Climate_Change_Act_-_VIC_08-15.pdf)
- Hazelwood Coal Mine Fire Inquiry Submission  
[http://dea.org.au/images/uploads/submissions/Hazelwood\\_Coal\\_Mine\\_Fire\\_Inquiry\\_submission\\_08-15.pdf](http://dea.org.au/images/uploads/submissions/Hazelwood_Coal_Mine_Fire_Inquiry_submission_08-15.pdf)
- Submission into the Inquiry into Unconventional Gas in Victoria  
[http://dea.org.au/images/uploads/submissions/Unconventional\\_Gas\\_-\\_VIC\\_submission\\_07-15.pdf](http://dea.org.au/images/uploads/submissions/Unconventional_Gas_-_VIC_submission_07-15.pdf)
- Inquiry into the Register of Environmental Organisations submission  
[http://dea.org.au/images/uploads/submissions/Register\\_of\\_Environmental\\_Organisations\\_submission\\_05-15.pdf](http://dea.org.au/images/uploads/submissions/Register_of_Environmental_Organisations_submission_05-15.pdf)
- Inquiry into the regulatory governance and economic impact of wind turbines  
[http://dea.org.au/images/uploads/submissions/Inquiry\\_into\\_Economic\\_impact\\_of\\_wind\\_turbines\\_04-15.pdf](http://dea.org.au/images/uploads/submissions/Inquiry_into_Economic_impact_of_wind_turbines_04-15.pdf)
- Submission on the National Clean Air Agreement Discussion Paper  
[http://dea.org.au/images/uploads/submissions/Submission\\_to\\_the\\_National\\_Clean\\_Air\\_Agreement\\_04-15.pdf](http://dea.org.au/images/uploads/submissions/Submission_to_the_National_Clean_Air_Agreement_04-15.pdf)
- Setting Australia's post-2020 target for greenhouse gas emissions submission  
[http://dea.org.au/images/uploads/submissions/Setting\\_Australia's\\_post-2020\\_target\\_greenhouse\\_gas\\_submission\\_04-15.pdf](http://dea.org.au/images/uploads/submissions/Setting_Australia's_post-2020_target_greenhouse_gas_submission_04-15.pdf)
- Submission to the Climate Change Authority on future remission targets  
[http://dea.org.au/images/uploads/submissions/Submission\\_to\\_the\\_Targets\\_and\\_Progress\\_Review\\_03-15.pdf](http://dea.org.au/images/uploads/submissions/Submission_to_the_Targets_and_Progress_Review_03-15.pdf)
- Submission on Victoria's Renewable Energy Roadmap  
<http://www.energyandresources.vic.gov.au/energy/sustainable-energy/victorias-renewable-energy-roadmap>

A DEA representative has been sitting on the Environmental Protection Agency (EPA) Community Reference Group since 2012.

DEA strongly welcomes the Ministerial Inquiry into the future roles and responsibilities of the Victorian EPA. Reviews of EPAs are uncommon, and this review in Victoria is an important opportunity for the Government of Victoria to provide true reform which aims to be a model of excellence to other states. The aim of our submission is to assist with this.

DEA's experience and assessment of the role of Australia's State EPAs is summarised in this DEA report:

- *The health factor: Ignored by industry, overlooked by government*  
[http://dea.org.au/images/general/DEAtheHealthFactorV2\\_2013.pdf](http://dea.org.au/images/general/DEAtheHealthFactorV2_2013.pdf)

This report outlines damning situations where State and Federal Governments have overlooked or ignored the dangerous practices of industries (particularly coal and unconventional gas); have failed to use Environmental Impact Assessments (EIA) effectively to protect people and communities; and have neglected to consider impacts on human health in decision-making processes when allowing industrial projects to proceed.

The report ultimately calls for the establishment of a national EPA, potentially modelled after the United States EPA, which imposes minimum standards on States, where national efforts to reduce environmental risk are based on the best available scientific information; where federal laws protecting human health and the environment are enforced fairly and effectively; and where environmental protection is an integral consideration across a range of policy areas including human health, transportation, agriculture, industry, energy and international trade.

Considering that Australia does not have a national EPA, Victoria must build an EPA which is effective, far-reaching, and credible, to serve as a model which other states can emulate. Health must be integral in these considerations since any project that has environmental impact also poses a potential human health risk.

## Key Recommendations:

1. That the Victorian EPA integrates "health" and the protection of health:
  - explicitly into its mission statement
  - within its organisational structure
  - by formalising a working relationship with the Environmental Health program of the Department of Health and Human Services.
2. That the Victorian EPA move from a harms-based "regulatory risk model" to a "preventative, precautionary approach" in determining its scientific, regulatory and enforcement activities.
3. That Health Impact Assessments (HIAs) be performed during the time of EIA for all large industry and non-industry (e.g. transport) projects during early project planning stages. HIAs must be legislatively mandated and enforced, and health impact summary reports must be made publicly available, such that decision-making based on these assessments is open to scrutiny.
4. That the Victorian EPA strengthens its role to include the ability to monitor and regulate greenhouse gas emissions, and to promote climate protection.
5. That the Victorian EPA have a strong role in regulating sectors other than Industry/Business, in particular Transport.
6. That the Victorian EPA recognise that environmental justice equates with health equity, and thereby institutes measures to understand the demographics of vulnerable groups and to minimise environmental (and therefore, health) impacts upon these groups.
7. That the Government of Victoria broadens and strengthens the statutory and regulatory powers of the Victorian EPA; changes its funding model to one that is sustainable, independent, and commensurate with its duties; and allows some degree of independence in agenda-setting.

## Responses to the Terms of Reference

As we are a community-based organisation with a primary expertise in health, we will respond directly to the following points, as listed under "Scope of inquiry" in the Terms of Reference:

- 1) The EPA's appropriate role in relation to public health issues.
- 2) The Victorian community's expectations of the EPA as its environmental regulator.
- 4) The ability of the EPA to ensure that the principle of environmental justice is adhered to.

### Term of Reference 1 – EPA's role in public health issues

Since its establishment in 2001, DEA has worked tirelessly to bring attention to the need for a healthy natural environment – locally, nationally, and globally - for the protection of human health. Considering the extensive and widespread nature of "the environment", the work of DEA nationally and in Victoria has been equally broad, and has delved into issues on coal, unconventional gas, resource mining, forestry, transport, water management and aquatics, agriculture, climate change and greenhouse gas emissions, and the renewable energy industry.

Globally, the World Health Organization (WHO) estimates that 24% of global disease burden (measured by number of healthy years of life lost) and 23% of all deaths are due to environmental factors, with up to 36% of deaths amongst children aged 0-14 years due to environmental factors <sup>[1]</sup>. Air pollution itself is responsible for almost 7 million premature deaths annually and greater than 7% of the total global burden of disease <sup>[2]</sup>.

Pertinent to the EPA's current and future potential responsibilities, there are numerous examples that illustrate the impact and costs of environmental contaminants on public health:

- The combustion of fossil-fuels (primarily from transport and the use of coal for energy generation) is estimated to contribute annually to 1,600 premature deaths, 1,250 Emergency Department (ED) visits and/or hospital admissions amongst children for asthma and respiratory illness, and 2,500 ED visits/hospital admissions for adult cardiovascular and respiratory disease in Australia's four largest cities (Sydney, Melbourne, Brisbane, and Perth). <sup>[3]</sup>
- The health care costs of air pollution in Australia from coal combustion on the community are estimated to be \$2.6 billion per annum (Australian Academy of Technological Sciences and Engineering, 2009 <http://www.atse.org.au/Documents/reports/the-hidden-costs-of-electricity.pdf>), while that from transport are \$2.7 billion per annum (Bureau of Transport and Regional Economics, 2005 [https://bitre.gov.au/publications/2005/files/wp\\_063.pdf](https://bitre.gov.au/publications/2005/files/wp_063.pdf)).
- Further illness and health costs accrue from non-airborne environmental contamination, such as soil and water contamination with mercury during coal mining operations.
- Regarding the health harms of traffic emissions, one study of more than 32,000 children in France demonstrated that the benzene in traffic emissions was associated with a 20% increased risk of acute myeloblastic leukemia for every 300-meter increase in major road length within 150 meters of a child's home, compared with those who lived more than 500 meters from the nearest road (Houot et al. 2015 <sup>[4]</sup>).

- Lead smelters in Port Pirie, South Australia have caused excessive blood lead levels in children of the town (see DEA *The health factor: Ignored by industry, overlooked by government* [http://dea.org.au/images/general/DEAtheHealthFactorV2\\_2013.pdf](http://dea.org.au/images/general/DEAtheHealthFactorV2_2013.pdf)). Lead is a cumulative toxicant that is particularly harmful to young children. It affects multiple body systems, leading to slowing of brain development, behavioural issues, anaemia, high blood pressure, kidney problems. Many of the health problems can be irreversible, yet exposure to lead itself is entirely preventable.

## **1. DEA recommends that the Victorian EPA integrates “health” and the protection of health into its mission statement, its organisational structure, and into its working relationships.**

### **A. Explicit inclusion of “health” in EPA mission statement and objectives**

Victorian EPA’s vision “for a healthy environment that supports a liveable and prosperous Victoria” (EPA website <http://www.epa.vic.gov.au/about-us/who-we-are>) is congruent with DEA’s mission. The EPA would agree that good human health is inextricably dependent upon a healthy environment, and that the ability of people to “live and prosper” is absolutely dependent on the maintenance of good health. The work of the Victorian EPA has focused primarily on the preservation of the environment itself - an inarguably valid undertaking, as the environment has unmeasurable value in its own right and its protection is the very core of EPA’s *raison d’être*. However, within the existing framework, health outcomes are viewed as a secondary measure and experience tells us that environmental values are often traded for development; health outcomes should not be traded so easily. DEA argues strongly that, because human health and the environment are so closely linked, human health outcomes must be included in primary considerations.

In the Ministerial Inquiry Discussion Paper, “the primary objective of the EPA is to enforce environmental standards in order to safeguard public health” (page 20). DEA vigorously applauds this stance and therefore would like to see an EPA with a stronger, more explicit, focus on “the protection of human health” in its mission statement, codified as an EPA objective, and that the EPA’s remit be expanded accordingly by being given sufficient legislative powers in order to more stringently and proactively protect human health.

A review of other jurisdictions’ environmental protection agencies (or equivalent) demonstrates that “health” is explicitly mentioned in the objectives of many federal, state, and local-level organisations:

- United States EPA – “Our mission is to protect human health and the environment”.  
“EPA’s purpose is to ensure that:
  - all Americans are protected from significant risks to human health and the environment where they live, learn and work;
  - national efforts to reduce environmental risk are based on the best available scientific information;
  - federal laws protecting human health and the environment are enforced fairly and effectively;
  - environmental protection is an integral consideration in U.S. policies concerning natural resources, human health, economic growth, energy, transportation, agriculture, industry, and international trade, and these factors are similarly considered in establishing environmental policy” (<http://www2.epa.gov/aboutepa/our-mission-and-what-we-do>)

- State of California EPA - "Our mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality" (<http://www.calepa.ca.gov/About>)
- State of Minnesota Pollution Control Agency – "Working to protect and improve our environment and enhance human health" (<http://www.pca.state.mn.us/index.php/about-mpca/index.html>)
- New York City Department of Environmental Protection (DEP) – "protects public health and the environment by supplying clean drinking water, collecting and treating wastewater, and reducing air, noise, and hazardous materials pollution" ([http://www.nyc.gov/html/dep/html/about\\_dep/mission\\_statement.shtml](http://www.nyc.gov/html/dep/html/about_dep/mission_statement.shtml))

#### **B. Integrate "health" into the Victorian EPA's organisational structure**

If the Victorian EPA is serious about strengthening its role in public health issues, it should add a health voice/expertise in its management and/or governance. Looking at the Victorian EPA's organisational chart, there are no board members, executive officers, nor principal experts who hold public health or medical qualifications, and no health focus within its organisational structure.

In comparison, the Californian EPA (a strong state-level EPA in the US which enjoys significant grassroots support and which has necessarily modelled robust environmental standards and policy innovation for the rest of the country) includes an Office of Environmental Health Hazard Assessment (OEHHA) which serves as a leading scientific organisation for evaluating risks to human and ecological health, and into which public health and medical officers are integrated (<http://www.oehha.ca.gov/about/description.html>).

#### **C. Formalise a working relationship with the Environmental Health program of the Department of Health & Human Services (DHHS)**

As an invaluable resource and to improve the transparency of EPAs interest in looking after public health outcomes, DEA strongly suggests that the Victorian EPA formalise a working relationship with the Environmental Health (EH) Program of the Victorian DHHS, and to work together in a regular, proactive (rather than reactive) manner for mutual benefit. Because the current nature of the relationship is not transparent, it seems that the collaborative potential of this affiliation is grossly underutilised as a resource.

For example, DHHS would be able to provide the Victorian EPA appropriate environmental health measures and limits used for air, soil, and water quality surveillance to enhance public health monitoring. In addition, health departments are also well versed in the need for HIAs and can help the Victorian EPA implement these more vigorously. The need for HIAs will be discussed in greater detail below.

## **2. DEA recommends the EPA move from a harms-based "regulatory risk model" to a "preventative, precautionary approach" in determining its scientific, regulatory and enforcement activities**

The Victorian EPA currently regulates businesses and industrial activities, and determines its priorities through a harms-based, "regulatory risk model" lens. Its tools consist primarily of a system of licenses and works approvals, guidelines, regulations, policies and standards, and fines (EPA website <http://www.epa.vic.gov.au/about-us/who-we-are>).

DEA applauds the proposal for the EPA to move towards a “preventative, precautionary” approach in determining its scientific, regulatory, and enforcement activities. The very definition of “public health”, according to WHO, is to prevent disease, promote health, and prolong life among the population. A precautionary approach has been applied historically, for example, in efforts to control asbestos use and to combat the tobacco industry. The Victorian EPA’s past and current efforts to curb air, soil, and water pollution by known or suspected toxins to preserve human health and the ecosystem have in fact followed a similar principle. However, we feel that the Victorian EPA must apply this approach more strongly and broadly.

The presumption of harm must always be recognised until proven otherwise. Using unconventional gas (UG) as an example, the perceived need for its development has been influenced by the desire of governments and companies for immediate financial gain, as there is little doubt that the practice contravenes human rights and health (<http://www.environmentandhumanrights.org/wp-content/uploads/2013/05/Fracking-Hum-Rts-Guide-2015.pdf>).

The Victorian Auditor General’s Office (VAGO) in its August 2015 report ([http://www.audit.vic.gov.au/reports\\_and\\_publications/latest\\_reports/2015-16/20150819-unconventional-gas.aspx](http://www.audit.vic.gov.au/reports_and_publications/latest_reports/2015-16/20150819-unconventional-gas.aspx)) has promoted the precautionary approach, declaring that “Victoria is not as well placed as it could be to respond to the risks and impacts that could arise if the moratorium is lifted, allowing unconventional gas to proceed. The Department of Economic Development, Jobs, Transport, & Resources (DEDJTR) did not sufficiently assess the risks or effective regulation of these activities prior to 2012... The infancy of the industry and the moratorium provide an ideal opportunity for the government to evaluate the full range of potential risks and impact of unconventional gas”.

While the Department of Environment, Land, Water and Planning (DELWP) is “supporting as necessary” the DEDJTR, DEA hopes that in actuality the DELWP is heavily involved in any risk/benefit analysis of UG. There is very little evidence that the EPA itself is doing pre-emptive work on UG risks, with no public statements regarding the environmental safety nor health safety of the practice nor any current mention of UG on the EPA website. Development projects in general often escape the scrutiny of EPAs or disregard mounting evidence of potential harm (<http://www.psr.org/assets/pdfs/fracking-compendium.pdf>). In the instance of UG, the health costs are not yet counted but it is the responsibility of the EPA to ensure there aren’t costs to count. The EPA should be taking a much more prominent role, by contributing to the scientific evidence and by ensuring thorough HIAs and EIAs have been performed and are being regarded.

DEA therefore stresses that EPA rigorously takes up a preventative approach, by **anticipating** and **proactively** inserting itself **early** into this, and other issues, with significant current and future relevance (i.e., climate protection and the regulation of greenhouse gas emissions – discussed below).

### **3. DEA recommends that the Victorian Government legislatively mandate, and that the EPA perform and enforce prospective Health Impact Assessments (HIA) during the time of Environmental Impact Assessment (EIA) with all large industry and non-industry projects during early project planning stages.**

#### **A. The need to mandate, perform, and enforce HIAs with all large industry and non-industry projects**

DEA reminds the Victorian EPA that a HIA is an integral part of the EIA process. In Australia, states operate the EIA process under Health Impact Assessment (HIA) Guidelines (September 2001)

(<http://www.health.gov.au/internet/main/publishing.nsf/content/health-pubhlth-publicat-environ.htm> and <http://www.apho.org.uk/resource/item.aspx?RID=44249>). These guidelines specifically recommend a precautionary approach especially in the early stage of project development when there is inadequate scientific evidence for safety, in order to protect human health and wellbeing as well as the environment.

As part of the process of EIAs there is an expectation that the health effects on workers and communities will be effectively assessed. The process of HIAs conducted properly according to guidelines has the confidence of the medical profession. Our DEA report provides evidence of grave deficiencies in HIAs in most states (The health factor: Ignored by industry, overlooked by government [http://dea.org.au/images/general/DEAtheHealthFactorV2\\_2013.pdf](http://dea.org.au/images/general/DEAtheHealthFactorV2_2013.pdf)).

The current process of HIAs is complex and is conducted by the states under optional guidelines issued by the Commonwealth. The decision about whether a HIA is required for a project is usually made by the same department that is dealing with the EIA and medical advice is not always sought in this process.

A glaring example of the lack of consideration of human health impacts occurred in the planning of the East-West Link project, a proposed cross-city road connection extending across Melbourne from the Eastern Freeway to the M80 Ring Road. No health impact assessment was performed at all to our knowledge, and only sporadic and fragmented mention of the word "health" was in the environmental assessment report and EPA's reports, half in the context of "Department of Health", without any descriptions of actual predicted health impacts (<http://www.dtpli.vic.gov.au/planning/environmental-assessment/projects/east-west-link-impact-assessment/east-west-link-eastern-section-comprehensive-impact-statement>, [http://www.dtpli.vic.gov.au/data/assets/pdf\\_file/0010/230113/EPA-Submission.pdf](http://www.dtpli.vic.gov.au/data/assets/pdf_file/0010/230113/EPA-Submission.pdf), and [http://www.dtpli.vic.gov.au/data/assets/pdf\\_file/0007/229984/EPA-Assessment-Report-21-May-2014.pdf](http://www.dtpli.vic.gov.au/data/assets/pdf_file/0007/229984/EPA-Assessment-Report-21-May-2014.pdf)).

A more flagrant example is the story of the Burnley Tunnel. Before this Tunnel was built, there was a legislative requirement for EIA to include health. Because it was clear from the start that the tunnel would fail air quality testing, this requirement was repealed so that the tunnel could be built. The establishment of mandatory HIA would exclude such an episode from happening again, and allow the confidence of health professionals and of the community in government to be restored.

The fundamental failure of assessments in Australian states arises from the lack of independence and transparency of scientific/medical assessments provided by the EPAs. Presently the system of health assessment of large projects is compromised at numerous points, often from the start with the initial choice of terms of reference in how to conduct the health assessment. Unsatisfactory outcomes include failure to protect communities and/or in some cases widespread concern and opposition to decisions.

DEA's proposal is similar to that in the United States, where its National Environmental Policy Act of 1969 (the far-reaching legislation that established the foundation of environmental policy in the US) prominently features "the protection of human health and welfare" <sup>[5]</sup>. In practice, however, EIAs in both countries often focus narrowly on toxic exposures.



In 2007, the Environmental Health Directorate of Western Australia's Department of Health created a guideline to integrate HIA into EIA processes to ensure increasing the presence and visibility of health outcomes ([http://www.public.health.wa.gov.au/3/1425/2/health\\_impact\\_assessment.pm](http://www.public.health.wa.gov.au/3/1425/2/health_impact_assessment.pm)).

DEA considers that HIAs should assume a prominent place within EIAs here in Victoria as well. DEA wants to see the **Victorian EPA be given legislative mandate to demand and enforce independent, prospective HIA** in the EIA process during early project planning stages, and with all major industrial and non-industrial (e.g. transport) projects. The EPA will need to have formal channels of communication with all government departments (e.g., Transport, Resources, Health, Trade) so that the need for HIAs and EIAs on any proposed project can be determined. Lastly, the resulting health impact summary reports must be made publicly available, such that decision-making based on these assessments is open to scrutiny.

### **B. Environmental standards/limits must be kept in line with public health standards/limits**

Current environmental indicators, standards, and limits in Victoria are often not oriented towards protecting public health.

Firstly, the Victorian EPA must be measuring the right parameters, i.e., factors which are pertinent to human health. For instance, Australia's National Environment Protection Measures (and therefore the Victorian EPA) sets the standards for 6 outdoor air pollutants which does include particulate matter PM<sub>10</sub>, but excludes PM<sub>2.5</sub> and PM<sub>0.1</sub>.

In contrast, the WHO 2005 Air Quality Guidelines suggests limits for both PM<sub>10</sub> and PM<sub>2.5</sub>. It is now medically recognised that PM<sub>2.5</sub> and PM<sub>1.0</sub> account for a meaningful fraction of traffic- and road-sourced air pollution and are far more health-damaging than larger particles<sup>[6]</sup>. This results in under-reporting of roadside emission levels and underestimation of deleterious health effects. While setting a strong limit on PM<sub>10</sub> may significantly improve air visibility, in itself may not be adequate to avoid harmful health effects of pollution without also addressing PM<sub>2.5</sub> and PM<sub>0.1</sub>.

Similarly, in the US, the US EPA in early October 2015 lowered the standard for ground-level ozone from 75 parts per billion (set in 2008) to 70ppb. However, health experts say that this new limit is still not stringent enough, with the American Academy of Pediatrics (the leading paediatric group in the country) calling for a limit of 60ppb to protect children's health, especially for those with asthma (<https://www.aap.org/en-us/about-the-aap/aap-press-room/Pages/EPAOzonefinalstd.aspx>).

Secondly, the Victorian EPA must conduct measurements in a manner that is useful and relevant for public health outcomes. Regarding the measurement of PM<sub>2.5</sub>, there are currently only two stations (Alphington and Footscray) that measure levels of PM<sub>2.5</sub> across Melbourne (<http://www.epa.vic.gov.au/~media/Publications/1025.pdf>). Monitors at these stations are positioned to meet the original intent of measuring 'background ambient levels' and are thus placed as far away as possible from the polluting traffic. However, this creates a deficit in information for those who live/work/go to school near the roadside.

The Victorian EPA monitor in Alphington, which is situated in a leafy park 200m away from the nearest road, measured an annual average PM<sub>2.5</sub> level of 6.8µg/m<sup>3</sup> in 2012 (<http://www.epa.vic.gov.au/~media/Publications/1025.pdf>). This measurement has then been generalised as though it is representative of a large surrounding area of Melbourne including inner city suburbs several

kilometres away. Hourly levels monitored independently over 3 months in 2014 by a childcare centre in one of these suburbs (3km away) showed an average PM<sub>2.5</sub> level of 11.4µg/m<sup>3</sup> (Ecotech. City of Yarra. Kelle St Childcare Centre. Ambient Air Quality Monitoring Validated Data Report. Report No DAT8579. August 2014), significantly higher than that measured in Alphington the previous year (personal communication, Clare Walter, Submission for the National Clean Air agreement 2015) and above the World Health Organization (WHO) standard of 10µg/m<sup>3</sup>.

The points made in this section lead us to conclude that it is essential that HIA for project development proposals be conducted by medical and scientific experts, who will provide an independent, publicly-available report, before the needs of government, politicians and industry influence the process.

#### **4. DEA recommends that the EPA strengthens its role to include the ability to monitor and regulate greenhouse gas emissions, and to promote climate protection**

In 2009, the world's leading medical journal *The Lancet* pronounced climate change "the biggest global health threat of the 21<sup>st</sup> century" [7]. Through its direct effects such as extreme weather events (e.g., floods, storms, heatwaves, drought) and indirect effects (e.g., contamination of water supplies, changes to the distribution of insect vectors, increased air pollution, threats to food security, and reduced biodiversity). Climate change is already causing increased death and disability locally [3, 8, 9] and worldwide [10], and is predicted to cause significant environmental, economic, and social disruption in the near future unless greenhouse gas (GHG) emissions are substantially reduced within the next decade (<https://www2.ametsoc.org/ams/index.cfm/publications/bulletin-of-the-american-meteorological-society-bams/state-of-the-climate/>).

Australia is the highest per capita GHG emitter of all the Organisations for Economic Cooperation and Development (OECD) countries and the 15<sup>th</sup> highest GHG emitter in the world (Garnaut Climate Change Review, 2008 [11]). While the EPA already regulates other various forms of pollution, it **must** expand its role to regulate, stringently, greenhouse gas emissions in Victoria. It is DEA's hope that the Victorian EPA will be given greater authority to do so if the Climate Change Act is re-instated with strong emissions reduction targets.

The adoption and responsibility for this issue may seem a big ask; we think it is an appropriate task for a progressive and reforming government for the following reasons:

- Local reduction of greenhouse gas emissions often has health co-benefits;
- Identification of major emission sources leads to the option of reduction, and transition to renewable forms of energy even locally. This is the economic base for future competitiveness;
- Whilst emission reduction is dictated by the federal government, its success can be compromised by inadequate state action;
- States **are** responsible for adaptation but the delivery of this is often intertwined with mitigation- not least in community education;

Climate change as one of Victoria's greatest environmental challenges for the future has been a consistent and prevailing theme during the Inquiry Roundtable discussions (particularly those held with Environmental Stakeholders and Local Governments) and Community consultation sessions so far (from feedback published on the Inquiry website - [http://getinvolved.epa-inquiry.vic.gov.au/what-we-have-heard-so-far/news\\_feed/our-first-event](http://getinvolved.epa-inquiry.vic.gov.au/what-we-have-heard-so-far/news_feed/our-first-event)). There is a **clear desire and expectation** that the EPA must take a more central and stronger role in GHG regulation and reduction. This would include regulation of not only energy-generating industries such as coal and unconventional gas, but also of the transport sector and the renewable energy industry. We recommend that the EPA commences its journey towards adopting these responsibilities.

Other jurisdictions where the EPA or equivalent body monitors and/or regulates GHG emissions include: Scotland, USA, Canada, China and New Zealand. In the US, the states of Hawaii, Minnesota, and California have implemented economy-wide emission target legislation for their entire states, while Alaska, Arkansas, North Carolina, Arizona, and Kansas have executive or legislative commissions dedicated to climate change to develop appropriate policies (<http://www.c2es.org/us-states-regions/key-legislation>).

## **5. DEA recommends that EPA should have a strong role in regulating sectors other than Industry/Business, in particular Transport**

As part of regulating greenhouse gas emissions and in the process of shifting away from point-source pollution to diffuse source pollution, the Victorian EPA must start regulating more closely those sectors that fall outside of Business/Industry, in particular Transport.

For example, Australia is unusual in the developed world in not having mandatory emissions or fuel economy standards (these exist as guidelines only). The United States, Canada, the EU, Japan and Korea all have mandatory standards. China and India also have mandatory standards, and both have more efficient passenger vehicle fleets than Australia (see Climate Change Authority 2014 "Light Vehicle Emissions Standards for Australia" <http://www.climatechangeauthority.gov.au/reviews/light-vehicle-emissions-standards-australia>).

The example of East-West Link in the above sections is another relevant example of the need of the Victorian EPA to be actively involved in regulating large transport projects.

## **Term of Reference 2 – Community's expectation**

In the absence of a cohesive national environmental protection body in Australia, the Victorian EPA **must** use the opportunity provided by the Inquiry to transform itself into a strong, assertive, pro-active and pre-emptive, responsive, visible, and transparent agency with influence. DEA is asking that the Victorian EPA assume the role that a national EPA, such as the USA EPA, should provide. This would become a model that other state EPAs could emulate.

DEA was fortunate to have been a participant at the Inquiry's roundtable for environmental stakeholders in late August. It was clear from the Inquiry roundtable discussion that the community's perception of the current EPA is that it is weak, invisible, and lacking in responsiveness and authority. Furthermore, Community consultation sessions thus far expressed that "the EPA needs more power in its regulatory role, needs to be tougher on polluters and requires more resources to be

able to regulate effectively” ([http://getinvolved.epa-inquiry.vic.gov.au/what-we-have-heard-so-far/news\\_feed/our-first-event](http://getinvolved.epa-inquiry.vic.gov.au/what-we-have-heard-so-far/news_feed/our-first-event)).

Anecdotally, the relative lack of mention of any Australian EPA on environmental group websites such as the Australian Conservation Foundation or World Wildlife Fund in Australia, as compared to the regular mention of US state and national EPA on US environmental group websites, reflects the lack of Australian EPAs’ effectiveness. Community groups feel unable to rely upon EPAs to assist them in carrying out their conservation objectives. The EPA must command more public visibility, but must also be seen as an agency of action in order to do so.

The community also wants an **independent** EPA, one that does not have conflicts of interest with industry or other governmental departments, one whose primary focus is to protect community interests. To achieve the independence necessary to regain public confidence it should become a Statutory Authority subject to the same periodic review as other Authorities, and be subject to independent monitoring and evaluation rather than internal audit alone.

A recent (June 2015) court case brought before The Hague (Netherlands) demonstrates a strong community expectation that the government should be acting aggressively to protect its citizens, in this case from climate change (<http://www.theguardian.com/environment/2015/jun/24/hague-climate-change-judgement-could-inspire-a-global-civil-movement>). Almost 900 Dutch citizens sued their government for lack of climate action; the resulting decision ruled that the Dutch government’s position on climate change was illegal and ordered the government to cut GHG emissions by 25% in the next five years. Further lawsuits in other countries are anticipated.

Therefore, to become effective we recommend that the EPA be granted stronger statutory and regulatory powers; be given a funding model that is independent, sustainable, and commensurate with its duties; and have the ability to promote its own agenda along with executing that of the Minister’s office and of DEWLP.

## Term of Reference 4 – Environmental justice

Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, colour, national origin, or income with respect to the development, implementation, and enforcement of *environmental* laws, regulations, and policies.

As human health is inseparably linked to the health of the environment, health equity is intimately tied to environmental justice. This is enshrined in the WHO’s Constitution - “the enjoyment of the highest attainable standard of **health** as a fundamental **right** of **every** human being”. In effect the EPA is the guardian of this principle for all individuals and for the community. Once in place, environmental justice creates a sustainable environment upon which all humanity relies for its ultimate survival. The perspective of the EPA to date has been a standards-based one. We have standards for air and water, for example, but we should also be able to express the activities of the EPA using standards that measure the achievement of long-term goals like sustainability.

According to WHO, “the social determinants of health are the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels, which are themselves influenced by policy choices. The social determinants of health are mostly responsible for health inequities - the unfair and avoidable differences in health status seen within and between countries” ([http://www.who.int/topics/social\\_determinants/en/](http://www.who.int/topics/social_determinants/en/)).

The environment is a crucial social determinant of health - its condition is shaped by money, power and resources and is influenced by policy choices. A healthy environment promotes good human health, wellbeing and productivity while an unhealthy environment generates increased disease, infection and mortality. Certainly there are groups more vulnerable - for physical, cultural, and/or socioeconomic reasons - to environmental hazards: women and children, the elderly, people with disabilities, the poor and marginalised, those who live in rural/regional areas, and indigenous groups.

Well-known examples exist of hazardous waste sites, freeways or other transport infrastructure being disproportionately located in poorer communities (or subsequently creating poorer communities as a result). People in these communities regularly suffer the effects of "air pollution, noise, injury risks, and ugliness" (Frumkin H, 2005 <sup>[12]</sup>). Residents of the coal-mining centres in the Latrobe Valley have a reduced lifespan compared with other centres in Gippsland and with Victorians in general. These reductions amount to 4 years for males and 2 years for females, and are due to conditions that are consistent with effects from both mining and burning coal, and from socio-economic circumstance ([hazelwoodinquiry.vic.gov.au/part-four-health-wellbeing/health-wellbeing-background/health-latrobe-valley](http://hazelwoodinquiry.vic.gov.au/part-four-health-wellbeing/health-wellbeing-background/health-latrobe-valley)).

The concept of environmental justice is to bring a safe and healthy environment to **all** people (in this case, **all** Victorians) as a fundamental human right. This should be ultimate fundamental goal of the EPA, and mechanisms must be put in place to achieve this. Additional attention must be paid to vulnerable and disenfranchised groups since these are the people most frequently damaged by environmental hazards.

The process of HIA/EIA is intended to delineate impacts to various communities, thereby uncovering and highlighting vulnerabilities, inequities, and injustices. Geospatial mapping of anticipated or current environmental impacts of major projects is a key activity.

After highlighting these vulnerabilities and inequities, interventions can then be instituted to improve health equity through the environment (for example, in urban areas as described by Kjellstrom et al., 2007 <sup>[13]</sup>):

"actions and policies that deal with proximal risk factors in deprived urban areas, such as safe drinking water supply, reduced air pollution from household cooking and heating as well as from vehicles and industry, reduced traffic injury hazards and noise, improved working environment, and reduced heat stress because of global climate change. The urban environment involves health hazards with an inequitable distribution of exposures and vulnerabilities, but it also involves opportunities for implementing interventions for health equity....

Interventions at higher policy levels that will create more sustainable and equitable living conditions and environments include improved city planning and policies that take health aspects into account in every sector. Health equity also implies policies and actions that improve the global living environment, for instance, limiting greenhouse gas emissions".

These issues need resolution with action from progressive reforming governments.

## Conclusion

DEA wholeheartedly welcomes this Ministerial Inquiry into the future roles, responsibilities, and functions of the Victorian EPA, and its efforts to better incorporate health outcomes into its mission and scope of practice.

DEA would like “health” to be integrated at every level of philosophy and process: within the EPA’s mission statement, organisational structure and working partnerships; that health impact assessments be a routine, mandated requirement for every major industrial and non-industrial project; that the principles of environmental justice be met to the best of the EPA’s abilities in order to decrease striking health inequities found within the Victorian community.

Lastly, in the absence of a cohesive national environmental protection body, DEA urges the Victorian EPA to become a strong, assertive, pro-active and pre-emptive, responsive, visible, and transparent agency, and to be a model for other state EPAs.

We look forward to the outcomes of this Inquiry, and towards working with the Victorian EPA into the future.

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