From Dr Jill Maddox

## Submission toClean Air For All Victorians

EPA Victoria's role in relation to air quality should be one where its priority is to protect Victorians, and visitors to Victoria, from the adverse health effects from exposure to poor air quality. This should include protection from both lengthy exposure to poor air quality and from exposure to short-term events of extremely poor air quality. Protection should include monitoring of air quality at sites where breaches are possible, notifications of the community about areas with poor air quality (both short term and long term), and activities to improve air quality in problem areas. Given the fact that exposure to poor air quality in childhood has lifelong effects and that the adverse effects of poor air quality are greater to children, EPA Victoria should prioritise protection of children, especially young children, from poor air quality.

For this to happen EPA Victoria needs to measure air quality in appropriate locations at appropriate times (some adverse events are seasonal or related to time of day) and to provide appropriate information to Victorians so that Victorians are able to make informed decisions in regard to their exposure to areas with air quality problems. In addition EPA Victoria needs to provide advice on appropriate strategies that people can implement to mitigate air quality problems if they live in areas with poor air quality. Finally it needs greater powers to better control polluters.

## Areas that EPA Victoria could improve

1. The network of air quality monitoring sites in Victoria is not comprehensive. As stated in the auditor general's report too few sites are monitored (both in rural Victoria and in the cities). In addition EPA Victoria appears to have insufficient knowledge/historical data to be able to extrapolate from sites that are monitored to nearby sites that are not monitored. The network should be expanded.

2. EPA Victoria doesn't appear to have a proactive program to actively identify sites that may have problem air quality based on other knowledge e.g. ship emissions in residential areas near ports, vehicle emissions near major roads, industrial emissions etc. There are many locations where residential areas or schools or childcare centres are likely to be inappropriately located in relation to sources of poor air quality. These areas should be monitored so that appropriate mitigating strategies can be introduced (e.g. relocation or air filtering within buildings etc)

3. EPA Victoria appears to lack the capacity to perform *ad hoc* monitoring at a sufficient number of possible problem air quality sites simultaneously. There should be a mobile testing program that checks areas and enables identification of areas with air quality problems that need longer term monitoring.

4. EPA Victoria should conduct monitoring programs at affected locations when it becomes aware of breaches of air quality limits until at least such time as the air quality no longer breaches the limits. This currently does not appear to happen for all breaches. An example is the air quality at Station Pier where monitoring by VPCM revealed a breach in the annual average PM<sub>2.5</sub>. In addition EPA Victoria should develop programs for improving air quality at such locations and use the monitoring to assess the success of their mitigating program.

5. EPA Victoria's capacity for modelling of AQ plumes (dispersion, temporal and spatial) in neighbourhoods needs to be improved. EPA Victoria needs to have sufficient hardware, software and personnel with appropriate expertise. The 2013 report "Future air quality in Victoria – Final report" stated "it was not possible to undertake a detailed assessment of air quality impacts in regional centres in Victoria. This is because the air quality model requires a lot of computer time to run, and can only focus on a single region at one time. In this case, the Port Phillip Region was the focus of the modelling effort". In this day and age this is totally inappropriate.

6. EPA Victoria does not provide sufficient information as to what air improvement possibilities there are for people who live in areas with poor air quality (air filters etc).

7. EPA Victoria needs to have input into planning processes to minimise the exposure of Victorians to long term air quality problems. This includes the prevention of schools and childcare centres, residential areas, work places etc being sited in inappropriate locations. It also includes specifying minimum standards for buildings in terms of air quality improvement measures for buildings that are being build in areas with poor quality air (sealing of windows, no balconies, air filtering etc).

8. EPA Victoria doesn't provide sufficient access to historic air quality data to general public. Data available appears to be limited to real-time monitoring, 48 hour graphical view and historic data for a specified hour rather than for a time range. There don't appear to be summary reports for air quality locations that show air quality over time. EPA Victoria should aim to provide historical data in manners similar to what the Bureau of Meteorology provides for its monitoring sites.

9. EPA Victoria needs to assess the air quality standards based on the latest scientific knowledge about health effects and update them where necessary. This includes revising the sulphur dioxide standards to include 10' and daily limits based on World Health Organisation recommendations.

10. There is a perception that EPA Victoria is too close to some of the industries whose activities it is meant to be monitoring, and that it doesn't focus enough on protecting the health of Victorians. This has probably arisen because of historically poor budgets for EPA Victoria have meant that EPA Victoria has needed industry to provide monitoring programs rather than EPA Victoria conducting independent monitoring. The downside of the industry monitoring has been that industry controls the monitoring process in terms of determining the location and nature of monitoring and specifying that the data be kept confidential. This is unsatisfactory from a human health perspective. Now that the budget of EPA Victoria has been expanded EPA Victoria should seek to become a more independent regulator.

11. EPA Victoria needs to have input into the decisions as to when and where to conduct controlled burns so as to minimise the adverse events that large numbers of people are exposed to and not allow controlled burns in locations where weather and other conditions are unsuitable.