

# HAZARDOUS AIR QUALITY:

## THE NEW NORMAL?

New South Wales has experienced an unprecedented drop in air quality over the 2019-2020 summer. Bushfire smoke has blanketed rural and urban areas for days at a time. With experts warning that climate change will cause more intense and frequent bushfires, New South Wales must prepare for the new normal. Unions NSW has produced this document to propel this discussion forward into concrete actions the NSW Government can take to protect people's health.

Smoke from the bushfires, blankets Sydney, 21 December 2019.

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**Unions**  **NSW**

## WHAT'S HAPPENED

The Air Quality Index (AQI) is a report that indicates how clean or polluted our air is. The AQI is managed by the NSW Department of Planning and Environment which provides regular [Air Quality Index readings on its website](#). The data and reporting is made in accordance with the [National Environment Protection \(Ambient Air Quality\) Measure](#) which all state and territories follow.

This is what [their data says](#):

- Number of days in December where air quality was "Hazardous":
  - Sydney's East - 14 days (of 31 days);
  - Sydney's North West - 18 days;
  - Sydney's South West - 26 days;
- Highest (worst) reading recorded in Sydney was an AQI of over 2800 recorded on 19 December in Sydney's South West. This is more than 42 times higher than what is considered "Good" quality air (an AQI reading of 34-66 is rated "Good").

### What does poor air quality mean for our health:

- Short term health effects of Hazardous AQI - it is likely that even healthy people may experience eye, throat and nose irritation, coughing, chest tightness and shortness of breath. Sensitive groups (e.g. people with respiratory or lung conditions, older adults, children, pregnant women) may be at even greater risk.
- Long term health effects – [NSW Health advises](#) "Longer-term exposure can actually cause the development of respiratory and heart conditions and shorten someone's life."

- A [joint statement on December 16](#) of 22 health organisations, including Royal Australasian College of Physicians, Australasian College of Emergency Medicine, and Public Health Association of Australia, declared this is "a public health emergency" and called on the NSW Premier and Prime Minister to take greater leadership.

### No objective criteria, limited warning and safety protocols:

- NSW Health and the Department of Planning and Environment provide [an information sheet to understand the AQI](#). This advises sensitive groups to "avoid outdoor activities" and all people to "avoid strenuous outdoor activity" when the AQI is hazardous. The Office of Environment and Heritage issues a health alert on its website at 4pm if forecast AQI for the following day is poor.
- With the unprecedented and sustained deterioration in air quality, clear and specific advice is needed from NSW authorities. However, uncertainty remains on a number of key issues such as when workers should cease outdoor work, under what criteria and mitigations can workers continue working outdoors at various AQI levels, and when schools, child care centres or similar facilities should close or control indoor/outdoor spaces with unfiltered air?
- SafeWork NSW maintains a Code of Practice: Managing The Work Environment and Facilities. Despite being updated as recently as August 2019, it contains no mention of outdoor air quality and no advice for businesses and workers.
- In the absence of strong and clear government advice, unions have repeatedly pulled workers from outdoor work during periods of Hazardous AQI days.

NSW RFS fighting bushfires.

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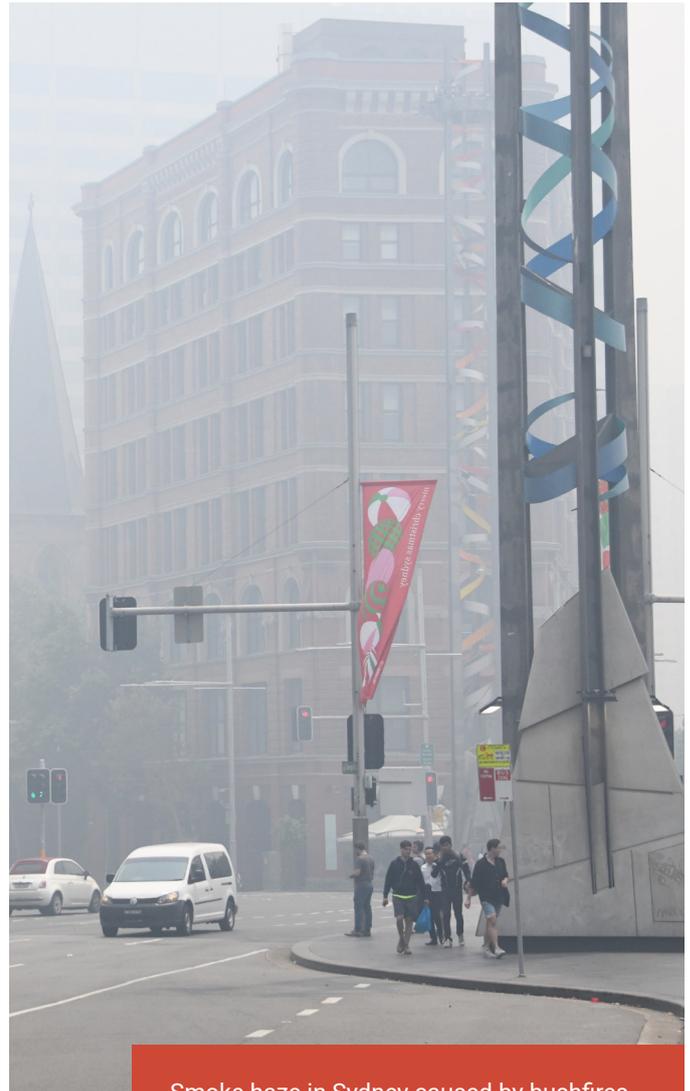
# NEW MEASURES TO DEAL WITH HAZARDOUS AIR QUALITY

With warnings that climate change will cause more intense and frequent bushfires, and the associated air quality risks, authorities need to do more to ensure NSW is aware and safeguarded from poor air quality.

This can include:

1. Update Work Health and Safety rules to directly reference health risks of working in bushfire smoke. SafeWork NSW and WHS rules should introduce a new set of obligations on employers when AQI exceeds 150:
  - a. locate work inside or in enclosed structures/vehicles with filters effective for PM2.5 particles;
  - b. changing the place of work to where levels are lower;
  - c. increasing frequency and length of rest times;
  - d. reducing the physical intensity of work to help lower breathing and heart rates;
  - e. when above mitigations cannot be made in full, employers should explicitly communicate to all employees that they can opt to work from home or not come into work.
2. The above obligations should also apply to employers for employees in sensitive groups when the AQI exceeds 66.
3. Given not all workplaces can provide instruments to monitor indoor air quality, SafeWork NSW should produce an indoor air quality assessment criteria, in consultation with health authorities. This can be used to determine what reasonable measures or mitigations are required to safeguard the air quality of indoor spaces. This can include the quality and maintenance of air conditioning systems and sealing of windows and doors. This criteria should link back to the obligation of employers to locate the work of their employees in spaces where AQI levels are acceptable.
4. Require health authorities to assess and designate certain facilities as clean air shelters during the bushfire season. This should include a new protocol to assess facilities (e.g. effective and well functioning air filtration systems, tight-sealing windows and doors).

5. A publicly available criteria and action matrix for schools, child care centres, aged care and similar facilities to assess air quality and take action to limit exposure.
6. Government should fund free expert air quality assessments of indoor spaces in NSW. These can, for example, assess the quality and effectiveness of air conditioning systems for filtering pm2.5 particles and whether structures are appropriately sealed from outdoor air.



Smoke haze in Sydney caused by bushfires, 10 December 2019.

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This document was produced by: **Unions NSW**