

Portsmouth City Council

Clean Air Strategy 2025 - 2040: Improving Air Quality for a Green and Healthy Future

DRAFT

Executive Summary

Clean air is essential for a good quality of life and good health. The air that we breathe, and the quality of that air affects us all, whether we live, work, study or play in the city. Portsmouth City Council is committed to improving air quality across the city, for the benefit of current and future generations. Minimising air pollution levels will bring significant and lasting benefits - with positive effects on public health, economic development, and population wellbeing.

The World Health Organisation (WHO) has called air pollution (both indoor and outdoor) 'the biggest environmental risk to health'.ⁱ There is strong evidence that air pollution causes the development of coronary heart disease, stroke, respiratory disease, and lung cancer, exacerbates asthma and has a contributory role in mortality.ⁱⁱ It is estimated that long-term exposure to outdoor air pollution in the UK has an annual effect equivalent to between 29,000 to 43,000 deathsⁱⁱⁱ and 328,000 to 416,000 life years lost.^{iv}

In 2023, the proportion of adult deaths attributable to long-term exposure to particulate air pollution in Portsmouth was estimated to be 5.2% (around 1 in 20 deaths), the same as the value for England as a whole.^v In previous years, the proportion was higher in Portsmouth than in England. Ongoing monitoring will confirm if this improvement is a downward trend.

Air quality affects everyone, but there are inequalities in exposure, and air pollution has the greatest impact on the most vulnerable. Those who are the most susceptible to the effects of air pollution are children, older people, those with long-term health conditions, and those living close to main roads where pollution is worst.

Air pollutants of concern to health include particulate matter, nitrogen dioxide and ozone, among others. Currently, the pollutants causing the most significant health impacts in the UK are emissions of nitrogen dioxide and particulate matter (NO₂, PM_{2.5} and PM₁₀).

The main source of air pollution from nitrogen oxides in the UK is transport, which accounts for 49%.^{vi} Other sources are industrial, commercial, domestic, and background and trans-boundary pollution (unavoidably brought into the city via weather systems).

The Clean Air Strategy 2025 - 2040 presents a **new mission for cleaner air** in the city.

Everyone in Portsmouth should be able to breathe air that does not damage their health and wellbeing. We will:

- **Prevent sources of pollution**
- **Limit exposure to pollution**
- **Protect the most vulnerable**

This approach prioritises prevention of pollution first, focusing on limiting exposure to pollution next. Action will be taken to protect the most vulnerable in particular, to avoid exposure to pollution. To do this, focus will be on areas of highest pollution and sites where those more vulnerable to air pollution live, learn and visit - schools, care homes and healthcare sites.

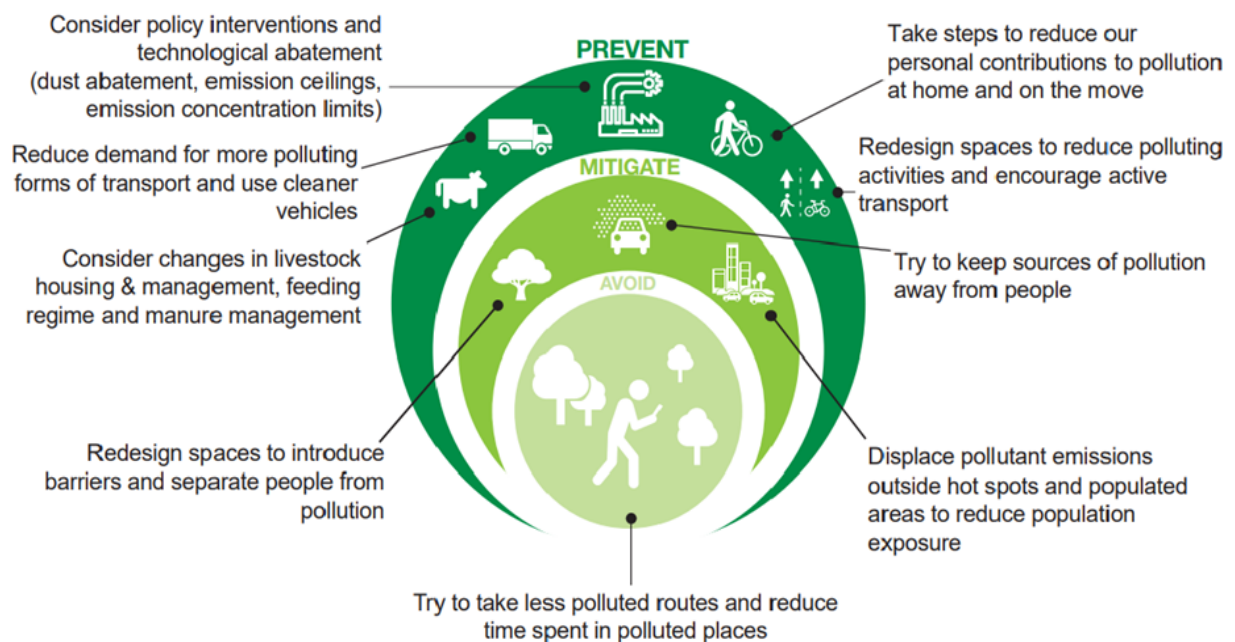


Figure 1: Illustrated air pollution hierarchy. Public Health England. Review of interventions to improve outdoor air quality and public health: Principal interventions for local authorities (2020) **[Create bespoke graphic]**

Information in Figure 1

Prevent:

- Redesign spaces to reduce polluting activities and encourage active transport
- Consider policy interventions and technological abatement (dust abatement, emission ceilings, emission concentration limits)
- Reduce demand for more polluting forms of transport and use cleaner vehicles
- Consider changes in livestock housing & management, feeding regime and manure management

- Take steps to reduce our personal contributions to pollution at home and on the move

Mitigate:

- Try to keep sources of pollution away from people
- Redesign spaces to introduce barriers and separate people from pollution
- Displace pollutant emissions outside hot spots and populated areas to reduce population exposure

Avoid:

- Try to take less polluted routes and reduce time spent in polluted places

Existing strategies that support cleaner air in the city include the Portsmouth Transport Strategy 2021-2038 (also known as Local Transport Plan 4 or LTP4), the Green Infrastructure Plan and the Clean Air Zone. Focusing on air quality specifically, this strategy recognises their contribution and recommends additional strategic actions, listed in the table below.

For the first time these apply to both outdoor and indoor air quality. All the actions contribute to the mission for cleaner air for Portsmouth.

Strategic action	Prevent	Mitigate	Avoid	Improves indoor AQ	Improves outdoor AQ
1. Continue to deliver transport, environmental, energy services and planning programmes which contribute to cleaner air	✓	✓	✓	✓	✓
2. Raise people's awareness of poor indoor air quality and provide solutions	✓	✓	✓	✓	
3. Raise awareness of the air pollution harms of domestic wood burning and offer recommendations regarding exposure to air pollution	✓		✓	✓	✓
4. Use natural infrastructure to improve air quality	✓	✓		✓	✓
5. Promote guidance on building maintenance and ventilation to promote better indoor air quality	✓	✓		✓	
6. Support energy efficiency and cleaner heating solutions	✓			✓	✓
7. Raise awareness about air pollution to reduce personal exposure			✓	✓	✓
8. Promote training for healthcare professionals			✓	✓	✓

Reducing air pollution has many well-evidenced co-benefits. Some air pollutants are also greenhouse gases, which contribute to climate change. Additional co-benefits include increasing active travel and consequently physical activity,^{vii} increasing workers' productivity,^{viii} and improving the health of vulnerable groups (children, elderly and socioeconomic deprived) and those with chronic conditions such as asthma and other respiratory diseases^{ix} which can be exacerbated by air pollution.

This air quality strategy will contribute to Portsmouth becoming a healthier and more sustainable and prosperous city. Partnership working is very much at the heart of this strategy. It is only by working collaboratively both across the council and with external partners that we can bring about meaningful improvements in air quality.

ⁱ World Health Organisation. [Ambient air pollution: a global assessment of exposure and burden of disease](#). WHO, 2016.

ⁱⁱ Public Health England. [Improving outdoor air quality and health: review of interventions](#). Public Health England, 2019.

ⁱⁱⁱ Mitsakou C et al. 'Updated mortality burden estimates attributable to air pollution' in [Chemical hazards and poisons report: issue 28](#). UKHSA, 2022.

^{iv} Committee on the Medical Effects of Air Pollutants. [Nitrogen dioxide: effects on mortality](#). Public Health England, 2018.

^v Office for Health Improvement and Disparities. [Public Health Outcomes Framework: Public Health profiles](#). Office for Health Improvement and Disparities, 2025.

^{vi} Department for Transport. [Domestic air pollution emissions from transport in 2022](#). Department for Transport, 2024.

^{vii} Xia T et al. [Traffic-related air pollution and health co-benefits of alternative transport in Adelaide, South Australia](#). Environment International. 2015;74:281-90. Woodcock J et al. [Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport](#). The Lancet. 2009;374(9705):1930-43.

^{viii} Graff Zivin J, Neidell M. [The Impact of Pollution on Worker Productivity](#). American Economic Review. 2012;102(7):3652-73.

^{ix} Woodcock J et al. [Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport](#). The Lancet. 2009;374(9705):1930-43; Sabel CE et al. [Public health impacts of city policies to reduce climate change: findings from the URGENCHE EU-China project](#). Environmental Health. 2016;15 Suppl 1:25.