

AIR QUALITY STRATEGY & ACTION PLAN

MAY 2023

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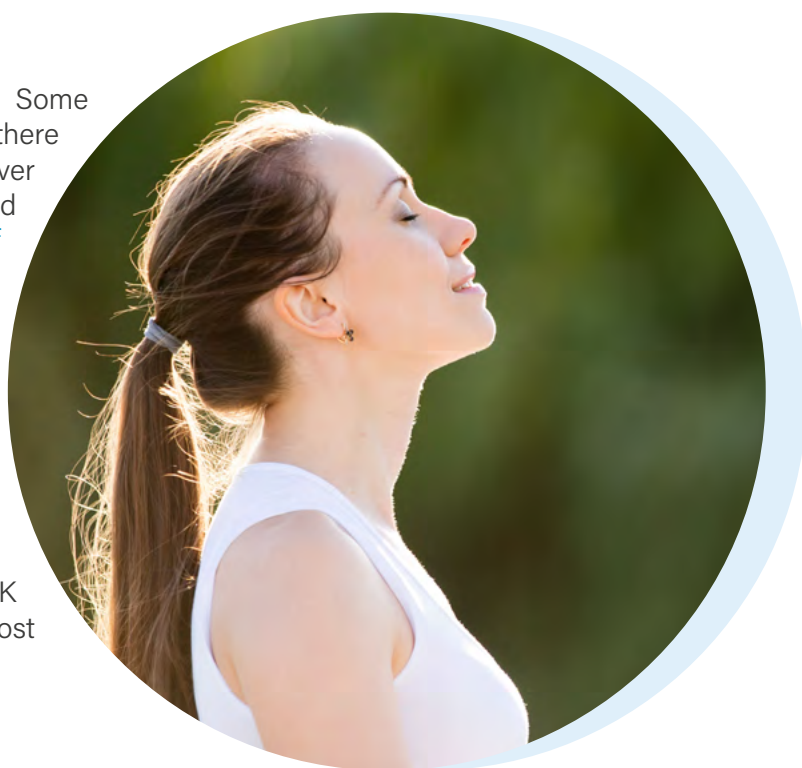
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What is air quality?

The term 'air quality' means how polluted the air we breathe is ([UK Government, 2019](#)), and includes both indoor and outdoor environments. Outdoor air quality is measured through monitoring stations that record data about the levels of different types of pollutants across the UK. While there are several types of pollutant, two pollutants that currently have the greatest impact on health at current levels are particulate matter or 'particulates' (PM2.5 / PM10) and nitrogen oxides (NOx) ([National Institute for Health and Care Excellence, 2017](#)).

Sources of outdoor air pollution include transport (road, rail and air), industry, and agriculture. However, most air pollution comes from the industrial and domestic combustion of fuels for heat, electricity and transport, with road transport emissions being the largest source of air pollution in urban areas in the UK ([Defra, 2022](#)). For example, petrol and diesel engines emit several types of pollutants including nitrogen oxides and particulates, while wear and tear on vehicle brakes and tyres is also a source of particulates ([Clean Air Strategy 2019](#)). Recent trends in air pollution shows that while there has been a steady decline in most outdoor air pollutants, PM2.5 has stalled in the last decade and is identified in the [Chief Medical Officer's 2022 annual report](#) as an area that needs particular attention.

Indoor air pollution is also important. Some pollutants can come from outside but there are indoor sources of PM and NOx, however more research is needed to understand sources and how to tackle them ([Chief Medical Officer's 2022 annual report](#)). Solid fuel heating and domestic burning (i.e. wood burning stoves and fireplaces) [contributes 25% of overall particulates](#) and so is a significant contributor of poor air quality in both internal and external environments. Suffolk Trading Standards are responsible for [enforcing restrictions on the types of fuels permitted for domestic burning](#) as part of the UK government's attempt to phase out the most polluting fuels and to improve air quality.



Why do we need to address air quality in Suffolk?

Air quality is important because long-term and short-term exposure to air pollution can result in significant health impacts. Nationally, air pollution is estimated to account for between 26,000 and 38,000 deaths per year, and further contributes to chronic ill health ([Chief Medical Officer's 2022 annual report](#)). According to [Public Health England \(2019\)](#), long-term exposure to poor air quality – from both indoor and outdoor sources – leads to reduced life expectancy through its contribution to the development of cardiovascular and respiratory diseases, including lung cancer. Short-term exposure (over hours or days) to air pollution can also cause a range of health impacts, including lung function and complications with asthma. Poor air quality is also linked to increases in respiratory and cardiovascular hospital admissions and deaths.

In Suffolk, air quality is generally good overall. However, there are some areas of concern, particularly where [Air Quality Management Areas \(AQMAs\)](#) have been designated.

The areas experiencing poorer air quality are often strongly correlated with inequalities for several reasons:



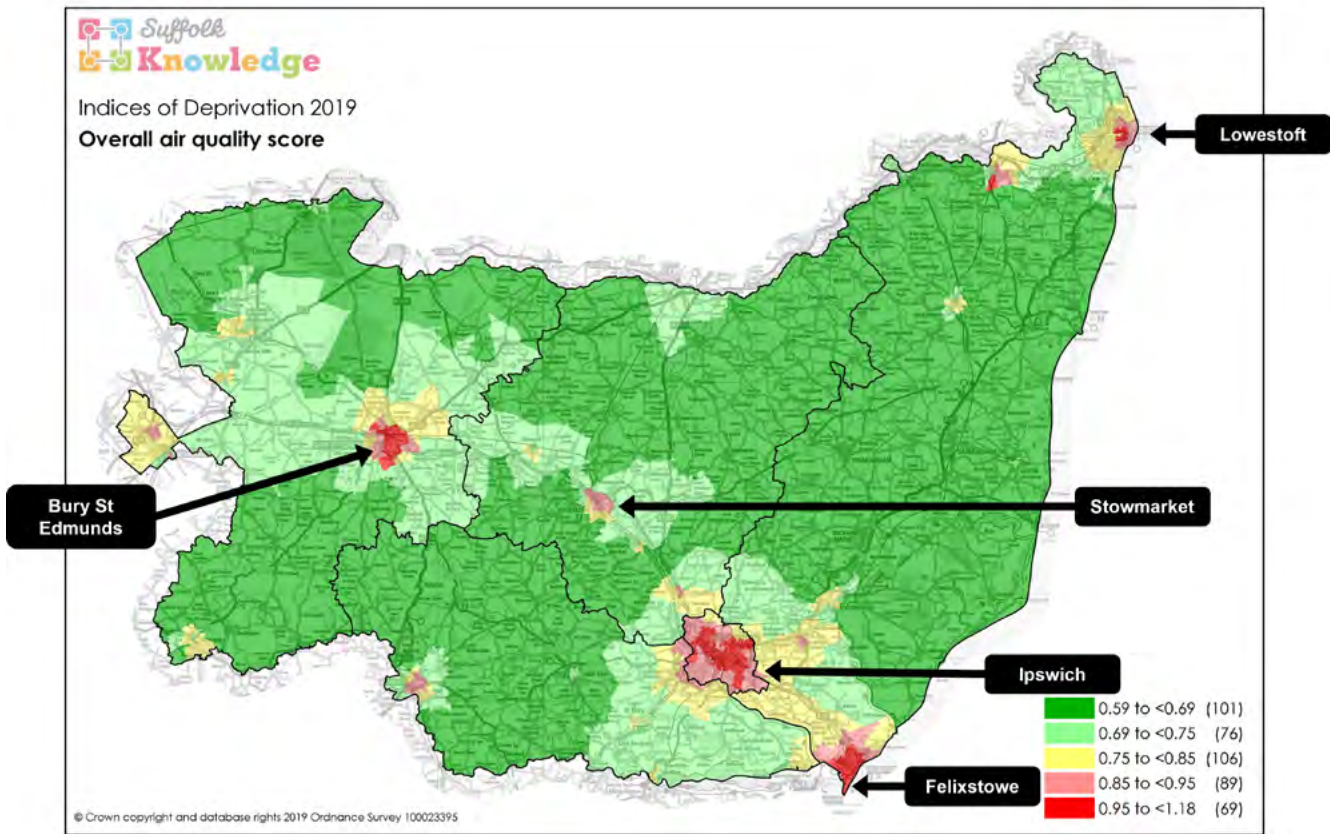
- 1.** Poorer air quality in Suffolk is related to traffic volume and congestion on busy roads
- 2.** Housing prices are generally lower around busy roads with traffic congestion
- 3.** The lower housing prices, in turn, means that those in Suffolk on the lowest incomes typically live in these areas, meaning that they are disproportionately exposed to poor air quality
- 4.** People living in these areas are also less likely to have access to natural green and blue spaces, which are known to have positive effects on health
- 5.** These groups may already be susceptible to poorer health outcomes due to pre-existing health conditions, old age, or because they have young families

Therefore, air pollution is a driver of health inequalities: some people are more exposed to poor air quality than others, and some people are more vulnerable to its impacts than others ([Chief Medical Officer's 2022 annual report](#)). We need to address air quality through all the means available to reduce the health risks associated with poor air quality. In addition, it is not only important to improve air quality overall, but also to improve population knowledge and data knowledge on the scale of the problem.

The map below (figure 1) shows the overall air quality score for Suffolk, taken from data published by [Defra's UK Air Information Resource](#). It is based on 2019 measurements of the concentrations of four pollutants: nitrogen dioxide, benzene, sulphur dioxide and particulates. The colour scheme represents the relative concentrations of these pollutants compared to national and European targets. The green shades indicate the lowest concentrations and the pink and red shades indicate the highest concentrations. This map demonstrates areas of high concentrations of pollutants in urban areas such as Lowestoft, Bury St Edmunds, Ipswich, and Felixstowe.



Figure 1 – overall air quality score in Suffolk:



The wider context:

This strategy is set within the context of the UK government's approach to air quality as set out in the [Clean Air Strategy 2019](#). [The Environment Act 2021](#) has established new air quality targets and requires that system partners must share the responsibility for, and work together on solutions to, poor air quality. Air pollution was also the subject of the [Chief Medical Officer's 2022 annual report](#) which highlighted the scale of the challenge of reducing air pollution, progress made so far and achievable solutions.



This strategy also sits within the wider context of the work that Suffolk County Council is doing around the climate emergency and the [Suffolk Climate Emergency Plan \(SCEP\)](#), which is a commitment by all Suffolk Public Sector Leaders to reducing carbon emissions. Similarly, the [Suffolk and North East Essex Integrated Care System's Green Plan](#) sets out its approach to tackling climate change, with one of its key themes being to reduce air pollution as a driver of poor health outcomes and health inequalities.

While it is important to recognise that these are separate areas of work, there are actions that will be mutually beneficial. For example, some of the actions being taken to reduce carbon emissions, such as decarbonising transport, will also be beneficial to air quality. As such, it will be important to work with our partners across the wider system, including district and borough councils, the NHS, and voluntary, community and social enterprise (VCSE) sector groups to deliver actions around air quality that add value to the work already being undertaken.

Responsibilities around air quality in Suffolk are shared across the county council and district and borough councils are set out in the [Suffolk Air Quality Profile \(2021\)](#) and summarised in Table 1 below. [See also: Defra Local Air Quality Management Policy Guidance \(August 2022\)](#) and the [Defra Local Air Quality Management Technical Guidance \(August 2022\)](#).

Table 1 – responsibilities around air quality in Suffolk:

Local authority	Responsibility
Suffolk County Council	<p>Proactively engaging with district and borough councils when an air quality issue is identified</p> <p>Acting as a consultee on planning and development applications, including making recommendations about measures to reduce air pollution</p> <p>Developing Local Transport Plans, traffic management and highway maintenance</p>

Local authority	Responsibility
<p>District and borough councils:</p> <ul style="list-style-type: none"> ▪ Babergh & Mid Suffolk Councils ▪ East Suffolk Council ▪ Ipswich Borough Council ▪ West Suffolk Council 	<p>Reviewing and assessing air quality across their district in accordance with Defra Technical Guidance</p> <p>Designating AQMAs & developing AQMA action plans for areas where any Air Quality objectives are, or are likely to be, exceeded</p> <p>Updating on and progressing with measures within the Air Quality Action Plan for each AQMA</p> <p>Developing Local Plans & decision-making on planning and development applications</p> <p>Producing an Air Quality Annual Status Report covering the district for Defra</p> <p>Working with SCC Public Health towards reducing PM2.5 across their district in accordance with Defra Technical Guidance</p>

Our approach to this strategy

This strategy has been developed in partnership between Suffolk County Council's Public Health and Communities directorate and the Growth, Highways and Infrastructure directorate, with contributions from our district and borough councils, NHS and the University of Suffolk. The development of this strategy is one of the recommendations set out in the [2021 Suffolk Air Quality Profile](#).

It sets out the range of actions identified as being important to the improvement of air quality, along with who is the lead authority for the work, timescales for implementation, and what measurements or outcomes will be achieved. Because this strategy builds on work already ongoing across the Council, some actions identified in this action plan are already underway, however, the status of each of the actions is reflected in the action plan.



The [Chief Medical Officer's 2022 report on air pollution](#) makes it clear that interventions around air pollution should be focused on areas where people live, work, and study, since these areas are where the greatest accumulated health benefits will be seen. Air quality varies across Suffolk, so the delivery of actions set out in this strategy will be prioritised towards actions that are likely to have the greatest positive impact on air quality. This includes focusing actions on areas of poor quality as well as recognising that actions in areas where air quality is less poor will also have an overall positive effect on air quality across the county. The council also intends to lead by example in supporting sustainable practices and working to minimise its own emissions and carbon footprint.

The actions have also been considered in the context of the air pollution intervention hierarchy shown in Figure 2 below (Public Health England, 2020) which is a way of prioritising interventions to address air pollution:

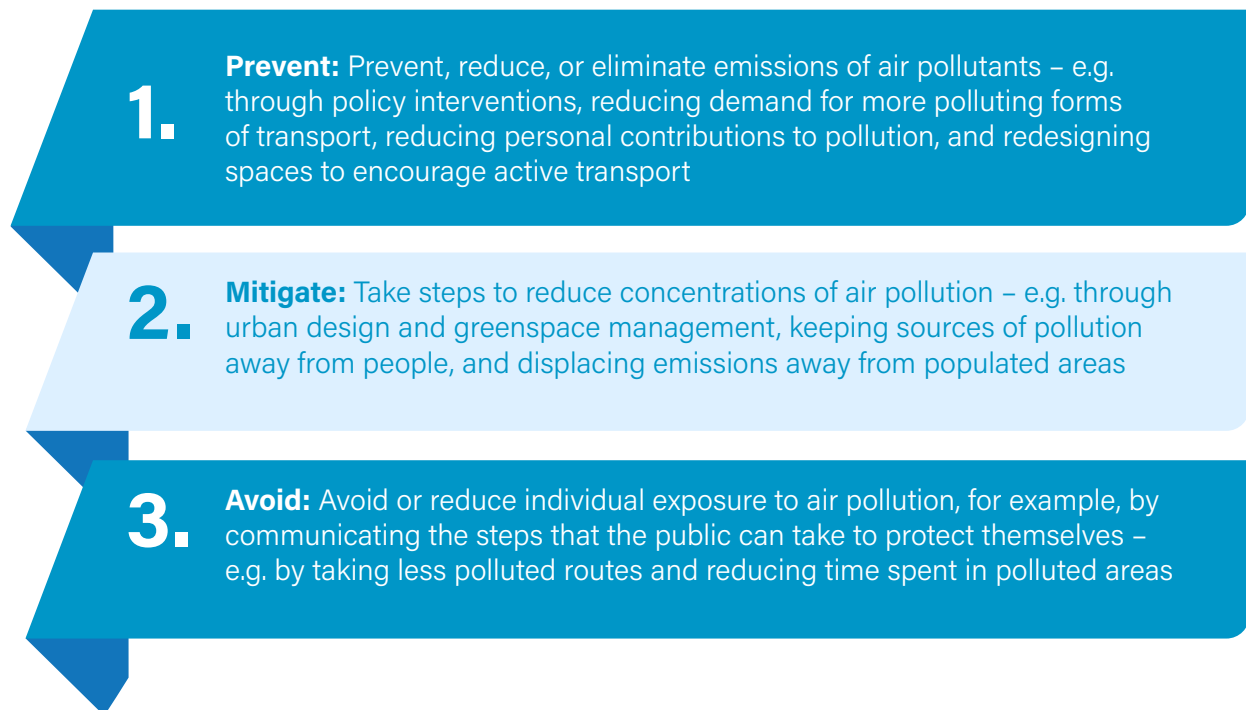
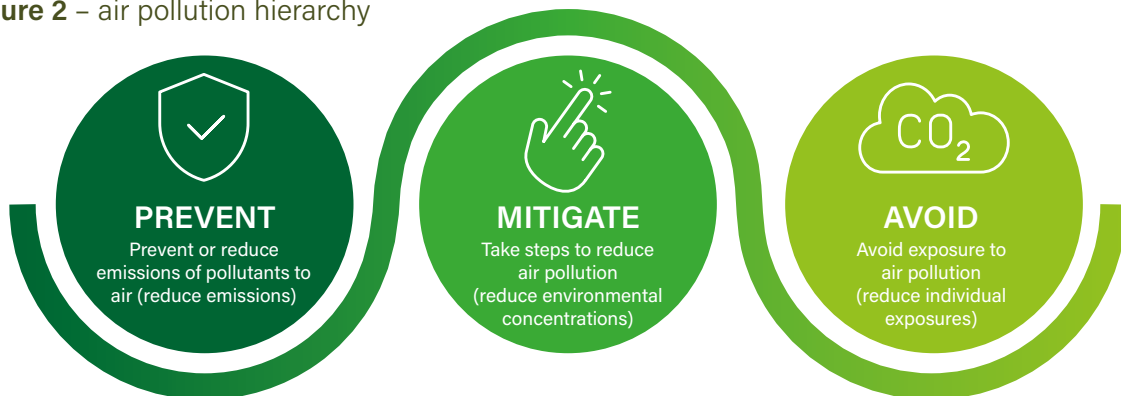


Figure 2 – air pollution hierarchy



A key part of this strategy also relates to communication that encourages positive behaviour change around air quality in businesses and individuals. Whether interventions are aimed at prevention, mitigation, or avoidance, they usually require people to do something different. As such, we will endeavour to ensure that all interventions related to this strategy are behaviourally informed. This means we will utilise appropriate models of behaviour to help understand the issues we are trying to tackle and recommend theoretically driven interventions to change behaviours.

Using the COM-B framework (Michie et al., 2011), we can identify whether interventions such as public campaigns are intended to affect capability, opportunity, or motivation to engage in desired behaviours. This will enable us to evaluate, identify gaps and plan future interventions more effectively.



This strategy hopes to achieve the following objectives:

- 1. Partnership working:** encourage and develop closer working relationships around air quality with internal and external partners in the public, private and VCSE sectors
- 2. Sustainable and active travel:** promote and enable a modal shift from car travel to active and sustainable forms of transport
- 3. Traffic- and congestion-related emissions:** explore and implement measures to reduce traffic- and congestion-related emissions
- 4. Carbon reduction:** support and enable homes and businesses to reduce carbon emissions and reduce fossil-based fuel use
- 5. Policy-level approach:** where appropriate, use available opportunities to include air quality in policies and strategies
- 6. Monitoring and enforcement:** ensure that decisions and measures relating to air quality are being implemented and enforced as intended
- 7. Environmental and Green Space Management:** use effective green space management to improve air quality in both indoor and outdoor environments, and enable developments to be more adaptive to climate change
- 8. Behaviour change and communication:** use behavioural science to promote positive behaviour change around air quality and carbon reduction within businesses and the general public

The actions in this document are organised around the following themes:



Strategic



Transport



Planning



Green
Infrastructure



Homes
and Businesses