



Clean air BRIEFING

**CONSERVATIVE
ENVIRONMENT
NETWORK**

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CEN Councillors: Clean Air Briefing

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This is not intended to be an exhaustive briefing but an overview of the key facts, figures and information that can help you to respond to the topic. This is written as if the reader is a new Councillor who does not have a background in clean air policy. If you are interested in finding out more please see the useful organisations on page 9 (section six).

1. Why should conservatives care about tackling air pollution:

- **Economic benefits:** There are significant economic advantages from tackling air pollution. Indeed, the government's estimates show our current air pollution levels cost the economy between £9-19 billion per year. Tackling air pollution relieves pressures on the NHS and benefits local businesses from a more attractive highstreet boosting footfall. There are also economic benefits from clean air solutions like affordable and reliable bus travel connecting residents with employment and opportunity as 77% of jobseekers do not have access to a private vehicle.
- **Benefits to community:** Clean air solutions can improve the feel of a place. Less traffic will make communities safer, quieter, cleaner and residential streets more peaceful to live on. Additionally, less traffic can make space for features like al-fresco dining in town centres. There are also benefits to community quality of life as the young and the elderly (or those who are unable to drive) live more independently as they have more transport choice.
- **Benefits to health:** In 2018 air pollution cost the NHS an estimated £157 million. Both children and the elderly are particularly vulnerable to the impacts of air pollution. Given their height and proximity in addition to their developing lungs and brains, children can face hindered development from air pollution. Consistent exposure to air pollution often means the elderly are more susceptible to suffer from asthma, strokes, heart disease or lung cancer.

2. What is air pollution and what are its impacts?

Key sources of air pollution:

- **Manufacturing and construction:** Solvents and industrial processes (movement of heavy machinery, erecting construction equipment and processes such as grit blasting and demolition).
- **Domestic burning:** Solid fuel (wood and coal) burning and bonfires.
- **Transport:** Fuel combustion and tyre and brake wear.
- **Agriculture:** Manure and slurry storage and spreading.

Types of air pollution:

- **Indoor pollution is dust, dirt or gases inside that are harmful to breathe in.** It can be caused by gas stoves and boilers, wood burners, damp and mould. Indoor pollution can be up to 9-12 times worse than outdoor pollution as the pollutants can't easily dissipate.
- **Ambient (outdoor) pollution is caused by numerous sources including manufacturing, combustion, transport and agriculture.** Ambient pollution is a significant problem both in cities and rural areas. It is estimated to cause 4.2 million deaths globally.

Type	What is it?	Sources (2020) (non exhaustive)	Potential effects
Particulate matter (PM)	PM is a mix of solids and liquids suspended in the air. PM varies in size, PM10 (particulates with a diameter of less than 10 microns) and PM2.5 (particulates with a diameter of less than 2.5 microns) are known as fine particles. PM2.5 is the most harmful to human health.	Manufacturing and construction (27% of PM2.5 and 16% of PM10), industrial combustion and processes (14% of PM2.5 and 34% of PM10), domestic combustion (25% of PM2.5 and 15% of PM10) and road transport (13% of PM2.5 and 12% of PM10)*	Inhaling PM is associated with worsening lung conditions, heart conditions and lung cancer. The elderly, babies and those with existing heart and lung conditions are particularly vulnerable.
Nitrogen oxides (NOx)	NOx is an irritant gas. NOx includes nitrogen monoxide (NO), which is a colourless gas, and nitrogen dioxide (NO2), which is a reddish brown gas with a pungent, acrid odour.	Road transport (28% of NOx), other forms of transport (13% of NOx), energy industries, manufacturing, and construction.	NOx gases react together to form smogs and acid rain, and also create fine particles. NOx causes inflammation of the airways at high levels and can cause shortness of breath. Long-term exposure decreases lung function, increases

			likelihood of respiratory conditions.
Ozone (O ₃)	Ground level ozone is a toxic air pollutant that is formed by a series of reactions with other types of air pollutants when they react together in sunlight.	There are no major sources of ozone pollution itself. Ozone is formed in the air from reactions between other pollutants.	Exposure to ground level ozone can present a number of respiratory conditions. Ozone is particularly harmful on sunny days and during heat waves where it forms smogs that sting the eyes, nose and throat. Importantly, ozone can travel up to 1,000 kilometres.
Sulphur Dioxide (SO ₂)	SO ₂ is a colourless gas that has a pungent, suffocating smell. It is produced by burning sulphur-containing fuels such as coal and oil.	Domestic combustion (32%), manufacturing and construction (26%), and energy industries (23%).	SO ₂ can cause vegetation loss from acid rain. SO ₂ is associated with asthma and chronic bronchitis. It affects the respiratory system, particularly limiting lung function. It can also cause irritation of the eyes and respiratory tract.

* As particulate matter can travel long distances in the atmosphere, around one third (approx. 33%) is transported from Europe.

Impacts of air pollution:

- **Air pollution is the biggest environmental threat to human health:** It is currently estimated that air pollution causes between 28,000 and 36,000 premature deaths per year. If the current trajectory continues, by 2035 the UK could have 2.5 million new cases of air pollution related health conditions such as asthma, stroke and heart disease.
- **Children are at particular risk from air pollution:**
 - There are estimates that as many as 1 in 3 children in the UK grow up consistently exposed to unsafe levels of air pollution.
 - As children are still developing their breathing capacity, they have smaller lungs and quicker breathing patterns which puts them at greater risk from air pollution.

- Primary school children are exposed to [30% more pollution](#) than adults walking along busy roads as they are in closer proximity to exhaust fumes.
- 50% of children who are driven to school are [exposed to double the pollution](#) inside a vehicle than those walking on busy streets.
- **There is a significant cumulative economic cost from poor air quality:** Poor air quality is particularly detrimental to public health. In the UK thousands are diagnosed with respiratory heart and conditions are admitted to hospital as a result of poor air quality. There are estimates that poor air quality costs the [UK economy between £9-19 billion](#) a year.

3. What are the existing council duties and powers?

- **Local air quality management (LAQM)** is a requirement of local authorities to assess air quality in a local area. In places where the nationally-set objectives are exceeded, local authorities will designate an air quality management area.
 - **Air quality management areas (AQMA):** Where an air quality management area is designated local authorities have a duty to produce a local air quality action plan which sets out the pollution reduction measures that will be put in place. Air quality management areas can vary in size, ranging from one or two streets to much larger.
 - **Local air quality action plans (AQAPs):** Local authorities have a number of levers at their disposal when creating air quality action plans. These include building and control procedures, waste management strategies, local transport plans, network plans, fleet management and education strategies.
- **Low emission zones** are a geographically defined area where the most polluting vehicles are restricted or discouraged from entering. To drive in a low emission zone a vehicle must meet a set emissions standard or pay a daily charge. A low emissions zone is enforced using automatic number plate recognition (ANPR) cameras which checks to see if vehicles meet the required standards. Local authorities have a duty to introduce a low emission zone in order to encourage a transition to cleaner forms of transport and reduce exposure to NOx pollution once it breaches the nationally set target.
- **Smoke control areas:** Local authorities have the power to designate a smoke control area anywhere in their patch. In these designated spots both residents and businesses must not buy or sell an unauthorised fuel unless it is in an exempt appliance or emit a substantial amount of smoke from a chimney.

4. What is the national policy picture?

- **Environment Act:** The landmark act has created a world-leading framework to set legally binding targets to improve air and water quality, tackle plastic pollution and restore habitats so plants and wildlife can thrive.
 - **The Act sets a legally binding duty on the government to set two new air quality targets into secondary legislation by 31 October 2022:**
 1. A reduction in the annual average level of PM2.5 in ambient air. Defra has proposed 10 micrograms per cubic metre of air ($\mu\text{g}/\text{m}^3$) across England by 2040. The EU set the UK's previous target at 20 micrograms per cubic metre of air.
 2. A long-term target that will focus on reducing population exposure to PM2.5. Defra has proposed a 35% reduction by 2040 (compared to a base year of 2018).
 - **The Act has created the new independent Office for Environmental Protection (OEP)** to scrutinise environmental policy and law, investigate complaints, and hold the government to account on environmental law.
- **Clean Air Strategy:** Published in January 2019, the strategy sets out the cross government and society actions required to improve air quality. The World Health Organisation applauded the strategy as an example for the rest of the world to follow. It includes:
 - A goal to halve the number of people living in locations exposed to particulate matter above the WHO recommended guidelines of 10 microns.
 - The creation of the [UK-air national monitoring site \(UK-Air\)](#) that brings together the Environment Agency's monitoring sites.
 - Domestic burning guidance to share with local authorities to increase compliance in smoke controlled areas ('[ready to burn guidance](#)').
- A proposition to legislate to give councils more powers to improve air quality and ensure only the [cleanest domestic fuels and stoves can be sold](#). This was delivered through the Environment Act.
- **Gear Change Report:** Published in July 2020, the report sets out £2 billion in new funding for local authorities to improve walking and cycling provision in towns and cities. To receive funding from the Department for Transport, all active travel networks must flow, be direct and logical. Policies set out include:
 - Creating a national e-bike scheme;
 - Ending funding for cosmetic road changes (e.g. pathway paintings to create cycle paths);
 - Strengthening the highway code ([implemented January 2022](#));
 - Encouraging cycling racks, mandatory bike registration and expanding proficiency courses;

- Working with GPs to prescribe cycling.

For more information on walking and cycling, please see our [Active Travel Briefing](#).

- **Bus Strategy:** Published in March 2021, the strategy sets out a plan to create cheaper, more reliable, frequent and safe bus networks across the country. Policies include:
 - Ensuring all routes are the same in the evening and weekends as they are in the daytime;
 - Creating simple routes with high frequency trunk services;
 - Requiring all services to offer multi-operator tickets, use the same route number and show each others' timetables;
 - Making railway stations hubs for connecting services, with bus stops close by;
 - Expanding park and ride schemes and creating more space for bikes in rural services.

For more information on buses, please see our [Bus Briefing](#).

- **Transport Decarbonisation Plan:** Published in July 2021, it sets out the government's plan to decarbonise transport — the UK's largest terrestrial emitting sector — to improve air quality, cut congestion and noise pollution whilst ending our contribution to climate change. Key clean air policies in the plan include:
 - Confirmation of the £2 billion for walking and cycling set out in the Gear Change Report;
 - Confirming the delivery of zero emission buses and the vision set out in the Bus Strategy;
 - Accelerating the transition away from internal combustion cars to an electric fleet.

5. What can be done to tackle air pollution and what action have Conservative councils taken?

- **Domestic burning:**
 - **Designate smoke controlled areas:** Local authorities can declare the whole, or any part of a district, a [smoke controlled area](#). In these areas it is an offence to emit smoke from a chimney unless using an authorised fuel. In these areas, local authorities have a limited ability to charge penalties where residents' chimneys emit too much dark smoke (the most polluting).
 - **Highlight 'safer' burning alternatives:** With four million households not connected to the main gas grid in the UK, many ([approx. 15% in the UK](#)) are still reliant on burning solid fuels domestically to heat their homes. It can be useful to highlight the [Defra 'Ready to Burn'](#) guidance to ensure that domestic burning is as safe and produces as little pollution as possible.

- **Work with local businesses to flag whether it is an offence to burn a type of fuel and the impact of burning on air pollution at the point of sale:** In a similar campaign, [CEN MP Robert Lagan](#) convinced local retailers not to sell disposable barbeques near the High Peak peatlands to avoid future wildfires. Councils can lead similar campaigns with non-authorised fuels in smoke controlled areas.
- **Active travel:**
 - **Create or update your area's walking and cycling strategy:** A new or updated walking and cycling strategy following changes to working patterns after the pandemic is an opportunity to transform, protect and improve a local community. Good examples include: [Kent County Council](#), [Suffolk County Council](#), the [West Midlands Combined Authority](#) and [Adur & Worthing Borough Council](#).
 - **Go further to widen choice by setting an active travel infrastructure standard:** Using a community consultation to map out the transport needs of local residents, create a standard that all new and updates to active travel in the area must adhere to. This would ensure that all active travel infrastructure is sensitively designed, properly consulted and useful to local people.
 - **Introduce school streets:** Encouraging pupils and parents to walk, cycle or scoot to school everyday will support them to incorporate exercise into their daily routine from a young age. The [Conservative controlled Kensington and Chelsea Council](#) have successfully introduced school streets throughout the borough.
 - **Increase bike storage and security:** Installing secure bike storage in the local area, particularly around transport hubs (e.g. bus shelters and train stations) and flats, will help residents take up an active commute. Local councils can work with local police forces, which have access to the [national cycle database](#), to set up and promote bike marking events to help reduce thefts in and around transport hubs.
- **Public transport:**
 - **Improve park and ride services:** Park and ride is an effective way to reduce congestion on roads leading to and within city centres. Park and ride car parks can also be a strategic place to install electric car charging points.
 - **Engage with local bus companies:** Enhanced partnerships between local transport authorities and a majority of their local operators can improve services. It can make patronage more affordable and reliable for residents.
 - **Use planning policy to increase bus use:** Councils with influence over local spatial planning can set requirements for new developments, including proximity to reliable public transport options to limit car dependency.

- **Establish on-demand transport services in rural areas:** On-demand transport services can be an effective way to introduce a workable public transport network to rural areas. Passengers are able to book journeys in advance using an app which matches with passengers travelling in a similar direction, using small minibuses. Tees Valley Mayor, Ben Houcen has set up ‘Tees Flex’ as an on-demand bus service.
- **Private cars and taxis:**
 - **Scale up local charging infrastructure to encourage electric vehicle (EV) usage:** The government is keen to use local authorities to scale up EV usage, as they best know their local residents' needs and the requirements of an area. The Department for Transport published the '[Electric Vehicle Infrastructure Strategy](#)' in March 2022. It announced that local authorities will have to develop and implement local charging strategies, subject to a consultation. This will be delivered through the £500 million local infrastructure support programme and the new £10 million pilot to fund local transitions.
 - **Strengthen taxi licensing:** Urban areas and cities often have a large taxi fleet. Controlling emissions from taxis in these areas is a critical part of a local authority's air quality action plan. The Low Emission Carbon Vehicle Partnership has produced a [low emission taxi guide](#). The Department for Transport is in the process of hosting an [open consultation \(opened March 2022\)](#) on best practice for taxi licensing and private hire vehicles. The consultation is seeking to provide the industry with support for transitioning to a cleaner fleet, retrofitting older vehicles, fuel recommendations and vehicle age limits.
- **Buildings and construction:**
 - **Require a code of construction practice (CoCP):** Local councils can produce a written code of standards and procedures that developers on major projects must adhere to. Councils can also make compliance a prerequisite of planning permission. [Westminster City Council's CoCP](#) includes emissions standards including a non mobile machinery emissions zone.
 - **Emissions from new and existing buildings:** In some areas, buildings contribute one third of air pollution. Local councils are well placed to raise awareness of the contribution that boilers and heating systems make to air pollution. Conservative-led Westminster City Council has produced a list of policies to reduce emissions from buildings in their [Air Quality Task Group Report](#), which looks to reduce pollution produced by electricity and heat generation.

6. Useful organisations

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- Living Streets
- Create Streets
- Mums for Lungs
- Asthma UK
- British Lung Foundation
- Clean Air Parents' Network
- Campaign for Better Transport
- UK Health Alliance on Climate Change
- Sustrans
- UK100
- British Heart Foundation
- Local Government Association

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