

# LACORS

## A clean bill of health

How councils' environmental protection work  
can improve health and well-being



part of the LGA group

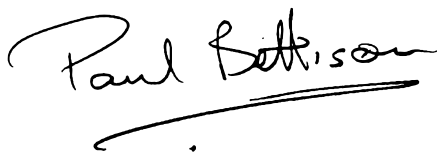


## A health warning

The air we breathe and the land we live, play and work on can seriously damage our health. Thousands of people in the countryside, as well as in towns and cities, die every year from respiratory conditions, caused or made worse by polluted air. Chemicals and other pollutants in industrial land can seriously harm adults, children and unborn babies.

Councils' environmental protection services are responsible for protecting your area from pollution and have made major contributions to its reduction. The result is that people often don't see the benefits of environmental protection work until something goes wrong. Events like smogs or major chemical spillages might occur more frequently if it were not for councils' action. There are new dangers from pollution sources such as traffic and new industrial processes, as well as from the legacy of our industrial past. This is not an issue to be taken lightly – pollution is a significant factor in ill health, it reduces life expectancy and it perpetuates health inequalities. It needs to be considered alongside other important local health issues such as reducing smoking, healthy eating and exercise.

I strongly urge councillors to develop their understanding of this important area, including talking with their environmental protection officers about how they themselves can best support action to improve community health.

A handwritten signature in black ink that reads "Paul Bettison". The signature is written in a cursive style with a long horizontal flourish underneath the name.

**Councillor Paul Bettison**

Chairman, Local Authorities Coordinators of  
Regulatory Services (LACORS)

## Key points

- This document outlines the health effects of pollution and how it contributes to health inequalities (page 3).
- It describes the statutory and strategic roles of councils' environmental protection teams in improving air quality, reducing industrial pollution and decontaminating land (page 4).
- Pollution disproportionately affects vulnerable groups such as children, older people and people with existing medical conditions. It also has a greater effect on areas of deprivation. This means that not only does it make people's health worse, but it also increases health inequalities.
- The major contribution councils' pollution reduction work makes to improving health in communities can often be missed among other important local health issues such as reducing smoking, healthy eating and exercise but should be considered alongside them.
- It is vital for councils to involve environmental protection teams as key stakeholders in improving public health.
- Councillors and senior council officers with planning, transport and health responsibilities need to be aware of the issues, how they could make things worse, how they could make them better and how environmental protection services can help (pages 6 to 8).
- Councils can also use their democratic role to take the lead in setting an example in reducing their own harmful emissions and protecting the health of their workforce (page 9).
- Public health specialists need to know how polluted air and land impact on health and what can be done about it by local government.
- An action checklist for councillors is included on page 11.



# Pollution and health

Councils' environmental protection functions, usually located within environmental health departments, cover a wide range of issues, with a significant impact on public health, mental health and well-being. Councillors are only too well aware of the stress and degradation of a neighbourhood that can be caused by problems such as noise and illegal waste dumping. There is increasing evidence that noise damages health including contributing to heart disease<sup>1</sup>. However, here we focus on three of the more "hidden" public health issues for which councils have specific responsibilities: **air quality**, **industrial pollution** and **contaminated land**.

## Air quality

### Did you know?

The "pea souper" smog in 1952 caused at least 4,000 deaths in London. The increased ozone in the hot summer of 2003 caused about 800 deaths.

(Sources: <http://news.bbc.co.uk/1/hi/england/2543875.stm>;  
[http://www.ncas.ac.uk/index.php?option=com\\_content&task=view&id=259&Itemid=9](http://www.ncas.ac.uk/index.php?option=com_content&task=view&id=259&Itemid=9))

Even short-term exposure to air pollutants can affect people's breathing, while longer-term exposure can permanently damage lungs. Air pollution has been linked to worsening of asthma, chronic bronchitis, heart and circulatory disease, and cancer. Research suggests that people whose death is caused by air pollution die, on average, 9.8 years earlier<sup>2</sup>. The UK air quality strategy estimates that the health impact of man-made air pollution in the UK in 2005 cost between £8.5 billion and £20.2 billion<sup>3</sup>.

### Did you know?

Road transport is the major source of air pollution in the UK.

(Source: UK air quality strategy, 2007)

The European Union sets targets to reduce atmospheric pollutants that countries must meet. The UK is failing to meet the targets and has applied for an extension of the deadline – this is not good for councils' reputations, as monitoring and regulating air quality is a responsibility they share with national government.

### Did you know?

Up to 35,000 people in the UK died prematurely in 2005 as a result of exposure to air pollution.

(Source: X)



1 <http://www.euro.who.int/noise>

2 Assessment of Deaths Attributable to Air Pollution (Kunzli et al., 2001): <http://aje.oxfordjournals.org/cgi/content/abstract/153/11/1050>

3 UK air quality strategy: <http://www.defra.gov.uk/environment/quality/air/airquality/strategy/>

**Table 1: Common pollutants and the harm they can cause**

Pollutant	Source	Those at risk
Particulate matter – fine particles or droplets in the air	Principal source is motor vehicles. Also coal burning power stations, tobacco smoke.	Cause breathing difficulties in people with asthma, chronic bronchitis, emphysema and other lung conditions. Smaller particles may reduce lung function in children and others. May cause premature death in older people with heart or lung disease.
Nitrogen Dioxide	Motor vehicles, industrial processes, power plants. Found close to busy roads.	Adversely affects some people with asthma.
Ozone	Found when two types of traffic pollutants, nitrogen oxides such as nitrogen dioxide and hydrocarbons, combine in sunlight. Highest levels in the hot summers.	People with lung diseases particularly at risk. A third of healthy people may develop symptoms like wheezing and chest pain when they exercise outdoors.

(Adapted from Warwickshire County Council's *Air Quality and Health Report*: <http://www.cfps.org.uk/scrutiny-exchange/library/health-and-social-care/?id=905>)

## Industrial pollution

Industrial emissions from businesses such as combustion plants, foundries, printers and dry cleaners can cause harm not only through the air people breathe, but also through polluting land and water, potentially affecting the food chain and therefore people's health. Industrial processes contribute to the release into the environment of harmful pollutants linked to respiratory and heart diseases, as well as using substances that could cause cancer if allowed to contaminate land, water or air. By-products of industry, such as waste, can also contribute to potentially harmful pollution.

### Did you know?

Industry contributed over a third of the total emissions of nitrogen oxides and particulate matter in the UK in 2007.

(Source: National Atmospheric Emissions Inventory: <http://www.naei.org.uk/>)

## Contaminated land

Land contamination is in large part a legacy of our industrial heritage, but current industrial and agricultural activities still present risks. Old landfill sites can result in contamination as can, in some cases, the natural geology of the land. Contaminated land can also contribute to air and water pollution through vapours and leaching.

### Did you know?

There may be around 300,000 hectares of land, both rural and urban, contaminated by industrial activity in England and Wales - approximately 2% of the total land area.

(Source: Reporting the evidence: dealing with contaminated land in England and Wales: <http://publications.environment-agency.gov.uk/pdf/GEHO0109BPHA-e-e.pdf>)

## The effect on communities

It doesn't take much to turn an area from one that is on its way up to one that is on its way down. One congested, noisy, dirty traffic junction can pull down the surrounding streets, reduce property values and make people want to get out as soon as possible. An ugly, neglected piece of waste land, which may contain invisible poisons, can have a similar effect. The poorest people live along the busiest, most polluted roads and near to disused industrial land because no-one else wants to live there. Their health, both physical and mental, suffers as a consequence and the inequalities they already experience are made worse. Within these groups, the most vulnerable – children and older people – are the worst affected. Noise, pollution and the physical surroundings make the area unpleasant to walk about in, and its "liveability" is reduced. This is part of what we mean when we talk about the "social determinants of health". Air and land quality play an important part in making a neighbourhood what it is, so if we want to improve neighbourhoods and reduce health inequalities, we need to pay attention to them.

### Did you know?

The grants budget from Defra to help councils find and clean up contaminated land (£17.5M available in 2009/10) has been consistently underspent each year since 2000.

(Source: Defra, 2010)

## The responsibilities of councils

Councils in England and Wales have a two-fold job:

- To contain and reduce existing pollution which threatens health and the environment
- To prevent new forms and sites of pollution, "future proofing" new developments, industrial and agricultural processes and daily activities such as travel from causing further damage to people.

District and unitary councils have statutory duties in relation to the air and land quality in their areas and to the regulation of businesses. They are required to monitor and assess general air quality in their area for the most harmful pollutants. Where air quality objectives for the pollutants are unlikely to be met, councils have to designate **air quality management areas** and implement action plans to meet the objectives. Specific actions are outlined in the sections below.

### Did you know?

Over 230 councils have so far declared an air quality management area, many of these in rural areas.

(Source: UK Air Quality Archive, 2010 : <http://www.airquality.co.uk/laqm/list.php>)

Businesses across 10 different industry sectors need to apply to their council for an environmental permit before they can start operating. Permits contain conditions that the business must comply with to protect health and the environment. Businesses pay costs in line with the "polluter pays" principle.

District and unitary councils have a duty to inspect their land to identify if any is contaminated. Councils must identify potentially contaminated sites, determine whether there is contamination, and if so, clean up or "remediate" the land. Costs for remediation are ideally met by the polluter (or the site owners), but where this is not possible a grant from central government is available for councils. Where developers wish to build on the site, clean-up is best achieved through the planning system.

As well as their specific statutory role to protect health through their environmental protection functions, councils are responsible for many other functions that may affect pollution. Good cooperation between **environmental health and public health**, **transport**, and **spatial planning** services is essential to ensure a strategic approach to improving the quality of life for those living near to busy roads and other sources of pollution. The action that councils can take is discussed in the next section.



### Councils' responsibilities and the health impact of contaminated land

A number of families have recently won a high court case against Corby Council in relation to links between contamination from the clean-up of Corby Steelworks between 1983 and 1997 and birth defects resulting in deformed hands and feet. The case highlights that councils need to ensure that their contaminated land teams are well resourced and competent in managing remediation projects, contractors and consultants. (Further details: <http://www.lacors.gov.uk/lacors/ContentDetails.aspx?id=22164>)

In 2008, the Local Government Ombudsman found maladministration causing "significant injustice" following a complaint from residents against East Cambridgeshire Council that the council had failed to ensure that the land the residents' homes were built on was properly decontaminated before construction. As well as voluntarily remediating land at a cost of around £750,000 the council had to pay compensation to residents and clean up the properties' gardens. Their health could have been at risk, for example, if they had grown and eaten vegetables from their gardens. This emphasises how important it is that councils use the planning system to adequately assess and address the risks from contamination of new developments.

(Further details: <http://www.lgo.org.uk/complaint-outcomes/planning/planning-archive-2007-08/east-cambridgeshire-district-council-05b01966-3-ot/>)

### Improving health through environmental protection

Councils can make a real difference to people's health through their environmental protection work. They can exercise their statutory role effectively and take a proactive approach to preventing, as well as reducing pollution.

One example of how environmental protection teams can work proactively with other council functions is the **Joint Strategic Needs Assessment** (JSNA). These must be produced for each social services area in England and Wales. The JSNA's purpose is to identify gaps in health outcomes with particular attention to health inequalities. As JSNAs are an important planning tool for action on public health, it is vital that they acknowledge the health effects of pollution. Environmental protection teams can help develop JSNAs by mapping areas of poor air quality and contamination and assist public health colleagues in devising action to mitigate their effects.

Another example is the use of **health impact assessments** (HIAs). These allow councils and their partners to look at how interacting with their physical environment affects people's well-being and health, including their mental health. Many councils now have a policy of carrying out HIAs in advance of major strategic decisions, for example in relation to new housing developments or transport plans. Unfortunately, environmental protection issues are not always considered in HIAs. However, it is important that environmental protection services are consulted when such strategic HIAs are carried out. The information they hold about the area and their advice could well make a difference to the final decision.



## Using environmental protection to improve health through planning

The planning process offers an important opportunity for councils to clean up existing pollution and prevent future pollution. For example, the five host councils for the 2012 Olympics, with advice from their environmental protection teams, have put in place controls to protect the health of local people from the potential harmful effects of construction during development. Properly considering environmental protection issues such as air quality and contaminated land is only part of the picture - but an important part, particularly in terms of promoting health and well-being. Some of the tools available include:

- **Supplementary planning documents** can be added to the council's local development framework to set out constraints on emissions and requirements for cleaning up contaminated land.
- **Planning agreements** (also known as Section 106 agreements) and a funding formula for contributions from developers to clean up land and reduce emissions by running car clubs or dedicated bus routes.
- **Travel and transport plans** agreed with developers, including **vehicle fleet standards** for the construction phase.
- **Guidance for developers on contaminated land** – many regional groups of contaminated land officers have produced joint guidance<sup>4</sup> (available on LACORS website).
- **Monitoring air quality** to predict the likely effect of planning proposals and advising developers on measures to prevent detrimental health impacts.

## Using environmental protection to improve health through transport

As transport is the major source of air pollution in the UK, council action in this area can have a significant impact. Examples of action to reduce pollution, which environmental protection services can advise on are:

- **Integrating air quality action plans with local transport plans** – Southampton City Council is one of a number of councils that has done this. In two-tier areas, this means county and district councils working together.
- **Low emissions zones (LEZs)** where polluting vehicles are banned or charged for entry. Norwich Council introduced a LEZ in July 2008.
- Introducing **park and ride schemes, and establishing differential parking rates** such as those introduced by Richmond Council, to encourage people to use cars with smaller engines.
- Taking measures to **reduce stationary idling of cars**, for example near schools as Hillingdon and Bristol councils have done.
- **Supporting or introducing car sharing schemes, and car hire clubs** such as the one introduced by Leeds City Council.

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4 Guidance for developers on contaminated land: <http://www.lacors.gov.uk/lacors/ViewDocument.aspx?docID=20912&docType=C>

## Using environmental protection in working with the NHS

Primary Care Trusts in England and Local Health Boards in Wales have a statutory duty to promote health and reduce inequalities among their respective communities. Directors of public health and other local public health professionals need to be aware of the support that environmental protection teams can give them, for example:

- **Joint seminars** to understand the effects of airborne pollution and other harmful emissions.
- Agreeing **a set of common objectives on emissions** and the contribution of each partner.
- Assistance from primary care trusts (PCTs) or local health boards in **communicating with residents** about potentially contaminated land - Warrington Council involved the PCT in its successful communication with residents when contamination was identified in an area of housing<sup>5</sup>.
- Including environmental protection in **Health Impact Assessments** and in both physical and mental health strategies to promote well-being.
- **Air quality alert schemes**, such as those in Sussex and Swansea to send alerts and health advice to those most affected on high air pollution days.
- Developing **strategies to combat fuel poverty** and keep people warm without increasing harmful emissions.
- Developing their own role as **healthy employers** by reducing emissions resulting from NHS activities.

## Using environmental protection to improve health through working with businesses

Environmental protection staff have frequent contact with local businesses including through their role in issuing permits to industry. They can use the opportunity to build on these relationships in a positive way, for example by:

- Providing **advice and guidance** to help businesses understand the potential health impacts of pollutants and comply with regulations.
- Giving specific advice and information to developers in advance of planning applications to **help speed up the application process**.
- Advising on affordable ways to comply with environmental law and improve efficiency, which can contribute to keeping local industry in business and **avoid increased levels of stress and anxiety** associated with unemployment.
- Developing **freight quality partnerships** with local industry to plan reductions in emissions and develop cleaner means of good distribution.

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5 Warrington Council case study: <http://www.lacors.gov.uk/lacors/ContentDetails.aspx?id=21137>

### Health protection – working with business

A concrete block manufacturing business in west Wales relocated but had little money to invest in environmental improvements. The site was therefore responsible for significant cement dust emissions, which can harm skin, eyes and lungs, and allowing sediment from its manufacturing process to be washed into a nearby watercourse. The council knew that formal enforcement could force the business to close, with the loss of 13 jobs. Instead, the council worked with the operator to make savings to pay for measures to become compliant with environmental law. Money saved has paid for improvements to the site drainage to avoid future contamination. The company has voluntarily upgraded its equipment and now produces a better product, more efficiently with minimal environmental impact.

### Using environmental protection to improve health through the council's role as community leader

An important contribution that councils can make is to take seriously their democratic role as community leaders and act as a role model for others. This means protecting the health of their own workforce by reducing risks from exposure to emissions – particularly from transport – and reducing the council's own harmful emissions. Environmental protection teams can advise on:

- An inventory of **the council's own vehicles** and measures to reduce their emissions, as Conwy Council has done, by fitting filters to its largest vehicles and “greening” its fleet.
- **Travel plans** for the council's own workforce.
- **Scrutiny reviews** of environmental protection issues, including air quality and health, as Warwickshire County Council has done.
- Whether any **council-owned land is contaminated** and, if it is, what can be done to protect health and the council's reputation.



### Scrutiny of air quality and health

Warwickshire County Council's Health Overview and Scrutiny Committee carried out a review looking at the links between air quality and health and how action on the two could be better integrated locally. Recommendations included a working protocol between the county's primary care trusts and NHS trusts and the district councils on how best to disseminate air quality information. Further information: <http://www.cfps.org.uk/scrutiny-exchange/library/health-and-social-care/?id=905>

The diagram below shows the widening circles of influence on people's health and how councils' environmental protection work can contribute to improving it.

**Figure 1: The social determinants of health and well-being with examples of how councils' environmental protection work can make a difference.**

(Adapted from A health map for the local human habitat (Barton and Grant, 2006; the Journal of the Royal Society for the Promotion of Health).



# Checklist: how councillors can support local environmental protection to improve our health and well-being

1. Ensure your area's Joint Strategic Needs Assessment, Local Transport Plan, traffic management plan and strategic land use plan adequately address the health impacts of environmental pollution with advice from your environmental protection team.
2. Talk to your head of environmental protection services and your local Director of Public Health or Public Health Wales representative to ensure they are aware of each other's work and that they work together as closely as possible.
3. Ask your head of environmental protection if your council knows where the contaminated land is in its area, how much of it is council owned, and what it is doing to reduce any potential health risks. Ensure that work is progressing to protect the council from possible financial and legal risks.
4. Also ask if your authority has an Air Quality Management Area and an Air Quality Action Plan and how much progress has been made on implementing measures.
5. Find out from your heads of transport and planning whether your council has a consistent approach to undertaking Health Impact Assessments in these areas and that your environmental protection team is involved in them.
6. Find out whether your council has involved its environmental protection team in developing new initiatives in transport and planning as described above (Page 7).
7. Find out whether your environmental protection team has been involved in measures to protect the council's staff from pollution and to reduce the impact of the council's own activities on air quality.
8. Find out if your health overview and scrutiny committee (or your county's committee, if you are a councillor at a district council) has considered looking at pollution and its impact on health.
9. Ask your head of environmental protection if air quality and land contamination issues are sufficiently considered prior to development being given planning permission.
10. Ensure that your environmental protection service is adequately resourced and staff sufficiently trained to protect the council from legal and financial risks – for example, in managing contaminated land remediation projects.





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<http://www.idea.gov.uk/idk/aio/13364561>

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*Local Government Association*

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