

Air Pollution in Exeter Factsheet

October 2018



Exeter has an air pollution problem. Exeter Green Party believes that people are not being provided with honest, clear facts about this. We all have a right to understand something that is such a serious public health issue and is affecting most, if not all of us living and working in the city.

“Effective communication of health messages about air pollution can save lives and improve quality of life for many.”

HM Government May 2018

In the absence of Exeter City Council providing the relevant information, this note provides some facts to help you understand the reality of Exeter’s air pollution problem.

1. Is Exeter’s air ok or not?

Exeter City Council’s official line is that ‘*air quality is mainly good with just a small number of hot spots where levels of nitrogen dioxide are above government objectives*¹’.

This sounds like everything is ok, but what are the facts?

Fact box

Air pollution is caused by a number of pollutants. The most significant pollutants in Exeter are, nitrogen dioxide, particulates (tiny particles of dirt) and low level ozone.

When the City Council say ‘air quality is mainly good’, they are only referring to **one** of these pollutants - nitrogen dioxide.

But your health is affected by **all** of the pollutants in the air, not just nitrogen dioxide.

The most dangerous particulates, PM_{2.5} haven’t been measured in Exeter until very recently so there is no official data on them. However, where there is heavy traffic, there are higher levels of particulates, so it’s a safe assumption that we are all exposed to PM_{2.5} wherever there is heavy traffic. *There is no safe level of exposure to these tiny particles.* (See footnote 3 below)

¹ <https://exeter.gov.uk/clean-safe-city/environmental-health/pollution-control/air-pollution/>. ECC air pollution website page

2. Letter from Public Health Devon to Exeter Green Party

3. <https://laqm.defra.gov.uk/public-health/pm25.html>

4. <https://www.gov.uk/government/publications/air-pollution-a-tool-to-estimate-healthcare-costs>. Public Health England

Exeter Green Party says...

Telling the public that 'air quality is mainly good' when only referring to **one** pollutant, when others are present and have health impacts, is misleading and dishonest.

It is also failing to help Exeter's residents to help themselves, for example, by planning commuter and school journeys to avoid heavy traffic.

"It is always good if possible to take less polluted routes if you are pregnant – or indeed if you are not pregnant.

I avoid busy roads when I walk to the station."

Dr Lisa Miyashita, Queen Mary University, London. Author of research showing particulates in unborn babies.

2. What about nitrogen dioxide pollution in the city?

Exeter City Council say that in relation to nitrogen dioxide pollution, air quality is 'mainly good' in the city, with 'just small number of hotspots where levels of nitrogen dioxide are above government objectives'².

The 'hotspots' refer to sites which breach the legal limit for nitrogen dioxide levels – 40mg/m³.

The City Council refer to illegal levels of nitrogen dioxide as 'not meeting government objectives'.

Sounds quite ok doesn't it? But again, we say that this is a grossly misleading description of the facts.

Fact box

Public Health Devon say that just **under half of Exeter's residents (43.77%) are living with 'medium' or 'high' nitrogen dioxide pollution** (as defined by Public Health England). See Appendix for reference.

There are many places showing readings that are very close to the illegal level of 40mg/m³; (see Exeter Green Party's map of these sites at <https://exeter.greenparty.org.uk/air-pollution.html>)

14% of all of the City Council's monitoring sites show **illegal** levels of nitrogen dioxide

47% of these monitoring sites show 'medium' or 'high' levels of nitrogen dioxide as defined by Public Health England;

² <https://exeter.gov.uk/clean-safe-city/environmental-health/pollution-control/air-pollution/>

4. <https://www.gov.uk/government/publications/air-pollution-a-tool-to-estimate-healthcare-costs>. Public Health England

Exeter Green Party says...

Exeter Council's description implies that things are ok, with just a few problem 'hotspots' of nitrogen dioxide pollution. This does not represent the facts of how widespread and how high pollution levels are.

It also contradicts what Public Health Devon say about the public's exposure to this dangerous pollutant ie that just under half of the city's residents are living with 'medium to high' levels of nitrogen dioxide.

The City Council should stop hiding behind misleading language and be honest about the serious air pollution issues in the city.

3. Where is the worst pollution?

The City Council regularly seeks to give the impression that 'air quality is mainly good', with just a few hotspots. The table below shows all of the readings taken by the council that are over $28.5\text{mg}/\text{m}^3$ - the level which Public Health England define as 'high' pollution. Over $40\text{mg}/\text{m}^3$ is illegal, or what the City Council describe as 'not meeting government objectives'.

(See next page for facts on the city nitrogen dioxide pollution problems)

Fact box

Air pollution affects you whether you are walking, cycling, or in a car. Travelling through corridors of polluted air on a regular basis has an impact on you, even if you live in a low pollution area.

Alphington Road / Street, Magdalen Road / Heavitree Road / Honiton Road and Blackboy / Pinhoe Roads have close to illegal levels of nitrogen dioxide along most of their length.

Exeter Green Party says...

Exeter Council's focus on 'hotspots', with no reference to the reality of widespread, elevated levels of nitrogen dioxide gives an entirely false picture of nitrogen dioxide pollution in the city.

Nor does it recognise that many people are travelling along the most polluted routes twice a day, 5 days a week, for the school run, or commuting.

People need to understand where the pollution is so they can take steps reduce their exposure and so they know their health is being affected by spending time in or travelling through these areas.

Fact box

Sites showing nitrogen dioxide readings over 28.5mg/m³

Public Health England define over 28.5mg/m³ as 'high' pollution level. **40mg/m³ is illegal.**

All figures taken from Exeter City Council's most recent monitoring results, 2017.

**The sites listed below comprise just under half
of all the city's monitoring sites (47%)**

Site	NO ² mg/m ³	Site	NO ² mg/m ³
Bonhay Road (st Clements Lane)	28.7	Heavitree Road	34.1
Church Road, Alphington	29.1	Topsham/Tollards Road	35.4
Blackboy/Polsoe Road	29.2	North Street	35.7
Magdalen Street	29.2	Sidmouth Road	35.8
Fore St Heavitree	30	Cowick Street /Lane	37
Pinhoe Road	30.2	Magdalen /Barrack Road	37.2
Market Street	31	York Road	37.6
Holloway Street	31.3	Red Cow Village	38
South Street	31.5	Alphington Street	40.8
Magdalen Street	31.8	Pinhoe/Polsoe Road	41.2
Red Cow 2	31.9	Rowancroft (Heavitree)	43.5
Cowick St/Exe Bridges	32	Honiton Road	49.3
Cowley Bridge Road	32.3	Fore St Heavitree, inbound	40.9
Alphington Cross	32.7	Livery Dole	49.9
Cowick Street	33.6	Salutary Mount, Heavitree	52.7
Alphington Road	33.9	East Wonford Hill	59

4. Why worry about air pollution?

There is an ever-growing pile of research from across the world, all of it pointing to air pollution (from nitrogen dioxide and particulates in particular) as being far worse for our health than previously realised. And the research also suggests that much lower levels of air pollution damage our health than previously thought. Here's a summary:

Evidence was found to suggest that long-term exposure to air pollution is linked to:

- decline in lung function in adults – which can be a risk factor for chronic obstructive pulmonary disease
- asthma
- type 2 diabetes
- problems with brain development and cognition (thinking ability)
- cardiovascular diseases – conditions that can affect the heart and blood vessels, such as coronary heart disease
- cancer

4. <https://www.gov.uk/government/publications/air-pollution-a-tool-to-estimate-healthcare-costs>. Public Health England

The report also found evidence that poorer people tend to live in lower-quality environments and are more exposed to air pollution. This does not necessarily mean they are at increased risk, so long as concentrations do not exceed regulations³.

References

Here are a few references if you want to know more.

Air pollution risk to children in prams

<https://www.airqualitynews.com/2018/08/14/study-highlights-air-pollution-risk-to-children-in-prams/>

School run risks to children & dementia in older people

[https://www.theguardian.com/environment/2018/sep/18/school-run-air-pollution-children-black-carbonAir pollution linked to dementia](https://www.theguardian.com/environment/2018/sep/18/school-run-air-pollution-children-black-carbonAir%20pollution%20linked%20to%20dementia)

<https://www.theguardian.com/environment/2018/sep/18/air-pollution-causes-jump-in-dementia-risk-study-suggests>

Air pollution linked to hospital admission spikes

<https://www.theguardian.com/environment/2018/jul/10/air-pollution-linked-to-spikes-in-hospital-and-gp-visits>

Even low levels air pollution affect your heart

<https://www.bbc.co.uk/news/health-45034972>

Estimates of deaths from nitrogen dioxide pollution go up

<https://www.airqualitynews.com/2018/08/22/comeap-updates-estimates-on-uk-air-pollution-deaths/>

Government's Chief Medical Officers calls for tougher air pollution standards

<https://www.airqualitynews.com/2018/03/02/chief-medical-officer-calls-tougher-air-pollution-standards/>

Bristol study shows 8.5% all deaths in city due to air pollution

<https://www.bristol.gov.uk/documents/20182/32675/Health+Impacts+of+Air+Pollution+in+Bristol+February+2017/4df2fce5-e2fc-4c22-b5c7-5e7a5ae56701>

APPENDIX

1. Source: Letter to Exeter Green Party from Exeter City Council, 2nd February 2018
2. Table 1. Percentage of Exeter's population living 'low, medium and high' nitrogen dioxide pollution

³ <https://www.nhs.uk/news/heart-and-lungs/air-pollution-kills-40000-a-year-in-the-uk-says-report/>

4. <https://www.gov.uk/government/publications/air-pollution-a-tool-to-estimate-healthcare-costs>. Public Health England

Source : Extract from letter from Devon County Council Chief Officer for Communities, Public Health, Environment & Prosperity / Director of Public Health, to Exeter Green Party, 7th August 2018.

<https://exeter.greenparty.org.uk/resources/EGP/PDFs/Letter%20response%20to%20Lynn%20Wetenhall%20Exeter%20Green%20Party%2007.08.18.pdf>

NB Over 40 mg/m³ of nitrogen dioxide is illegal.

	Nitrogen dioxide exposure		
	<i>Low</i> <i>0 - 20.5mg/m³</i>	<i>Medium</i> <i>20.5 – 28.5 mg/m³</i>	<i>High</i> <i>Over 28.5 mg/m³</i>
Percentage of population living in these areas of Exeter	56%	39%	4.77

So **43.77** of Exeter's residents are living with 'medium and high' nitrogen dioxide pollution